

# PSYCHOLOGICAL ABSTRACTS

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# PSYCHOLOGICAL ABSTRACTS

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## GENERAL

2547. [Anon.] VIII congrés internacional de filosofia. *Rev. Psicol. Pedag.*, 1934, 2, 438-442.—The Eighth International Congress of Philosophy, held at Prague, September 2-8, 1934, was attended by more than 600 members. The discussion groups were organized around the following themes: (1) the significance of logical analysis for knowledge (formal mathematical logic, the concept of totality, the logical structure of science, the logical value of the calculation of probabilities, and mathematical positivism); (2) norms and reality, the most interesting conference in this group being that of Hellpach on the mystic concept of the community; (3) religion and philosophy, oriented around the three types of union between God and man: the God of natural, revealed and mystical religion; (4) the crisis in democracy, as illustrated by fascism and humanistic liberalism. Among the topics discussed in the general sessions were: Are the methods of natural science applicable to philosophy? Where does empiricism end and metaphysics begin? What is the mission of philosophy in our times?—*M. E. Morse* (Baltimore).
2548. Baumgarten-Tramer, F. The eighth international psychotechnic congress, Prague, September 11-15, 1934. *J. appl. Psychol.*, 1934, 18, 617ff.—Report of meeting.—*R. S. Schultz* (Psychological Corporation).
2549. Cason, H. Organic psychology. III. The methods and subject matter of psychology. *J. gen. Psychol.*, 1934, 11, 187-193.—A treatment of psychological methods, the subject matter and fields of psychology, and the aims of experimental psychology from the author's systematic standpoint of organic psychology. "In every science an attempt is made to bring together the facts and principles which have as wide an application as possible, and experimental psychology is the central body of psychological knowledge to which all of the special fields are related. This central body of knowledge is scientific, experimental, and organic. It includes activities that are found in the normal and in the abnormal, in adults and in children, and in men and animals."—*H. Cason* (Wisconsin).
2550. Chou, S. K. Maze construction and the rolling-ball maze. *J. gen. Psychol.*, 1934, 11, 197-209.—The author calls attention to the distinction between maze pattern and maze construction, summarizes and discusses some of the main varieties of maze construction, and describes the rolling-ball maze. Compared with the tracing-stylus maze, in the rolling-ball maze the performance is indirect, the coordination is more complex, and the sensorimotor control is perhaps more difficult.—*H. Cason* (Wisconsin).
2551. Chou, S. K. A water elevated maze. *J. gen. Psychol.*, 1934, 11, 223-226.—This maze is a combination of Miles' narrow-path elevated maze for rats with McDougall-Li's water-tank method.—*H. Cason* (Wisconsin).
2552. Deussen, J. Klages' Kritik des Geistes. (Klages' criticism of mind.) Leipzig: Hirzel, 1934. Pp. xvi + 199. RM. 4.80.—As the fifth publication in a series of volumes in "Studies and Bibliographies of Contemporary Philosophy" edited by Werner Schingnitz, this is a survey and presentation of Klages' philosophical system. His philosophical theory passes through three phases, more or less chronologically determined. His psychological principles are elaborated, as well as the metaphysical significance of his characterology. Other topics discussed are: the role of the will, the criteria of truth, mind in relation to systematic anthropology, the logical and the non-logical, causality, mind as reflection, the possibility of error, symbolization, individuation. An appendix lists Klages' works, appropriately classified, and a further bibliography contains the titles of the most important authors in Klages' school of thought.—*P. S. de Q. Cabot* (Harvard).
2553. Dockeray, F. C., & Taylor, J. H. A pressure-recording stylus. *J. gen. Psychol.*, 1934, 11, 215.—By means of the stylus described it is possible to record the pressures exerted and accuracy in hitting a target.—*H. Cason* (Wisconsin).
2554. Dorcus, R. M. Research in psychology in colleges. *J. gen. Psychol.*, 1934, 11, 98-111.—Research at the collegiate level is unfavorably compared with work carried on in universities. The author argues that less emphasis should be placed on research in colleges so that individuals are not unwillingly forced into it.—*H. Cason* (Wisconsin).
2555. Duerk, H. Catechism of psychology for nurses. New York: Kenedy, 1935. Pp. 265. \$2.00.—*R. R. Willoughby* (Clark).
2556. Giehm, G. Die Hauptrichtungen in der modernen Psychologie. (Principal trends in modern psychology.) *Allg. Z. Psychiat.*, 1934, 102, 60.—The author distinguishes two principal trends in modern psychological research. The first deals with conscious experiences abstracted from their relation to the person. The second lays special emphasis on the inseparable connection between conscious experience and the ego. The author calls the former the objectivating, the latter the subjectivating trend. The different psychologies, from the old association psychology to psychoanalysis and characterology, are classified in either of these two groups. Problems of mass psychology and parapsychology are also discussed.—*P. Klimpel* (Leipzig).
2557. Glaeser, F. Innerlichkeit. (Inwardness.) *Z. pädag. Psychol.*, 1935, 36, 1-15.—A psycho-ph-

nomenological study of inwardness, which is defined as the depth-dimension of existence, as the honest search for the essential in one's life. It is not a mental trait but a form of living, of definite experience and behavior. In clarifying and delimiting the phenomenon, inwardness is set off from the psychic, emotions and feelings, imagination and fantasy, intellectualism and estheticism. Essential features are inner reflection, experience, contemplation and sentiment. These are always based on reality and actual life of the community. Education can promote genuine inwardness not by isolated provisions but by furthering it organically as a whole. Essential conditions for a healthy development are seen in peacefulness and collectedness, proper environment and occupation, solitude and silence. Modern education which promotes self-expression overlooks the possibility of self-impression, of creating inhibitions, for the sake of fruitful inwardness and worthy expression. Inwardness signifies the constant, honest reaching into the depth, the unreserved will to the meaningfulness of life, the not being satisfied with superficial pseudo-solutions, but immediate deep responsibility for creative living and production.—*W. Reitz* (Chicago).

2558. Göring, M. H., & Jung, C. G. *Geheimrat Sommer zum 70. Geburtstag*. (Geheimrat Sommer on his seventieth birthday.) *Zbl. Psychother.*, 1934, 7, 313-314.—This is a short biography and tribute. From youth Sommer's interests were inclusive. He studied at the same time medicine, philosophy and psychology, and the psychological accent has always been strong in his lectures and researches. The Society for Experimental Psychology was founded in 1904 through his efforts. Long before the Nazi movement, he recognized the importance of genealogy, eugenics and race. He emphasized the prevention of mental disease, and in 1923 founded the German Association for Mental Hygiene. In 1924 he arrived at depth psychology by way of experimental psychology. He was one of the founders of the General Medical Society for Psychotherapy and its president for several years.—*M. E. Morse* (Baltimore).

2559. Groeben, M. v. d. *Konstruktive Psychologie und Erlebnis. Studien zur Logik der Diltheyschen Kritik an der erklärenden Psychologie*. (Constructive psychology and experience. Studies of the logic of Dilthey's criticism of descriptive psychology.) Stuttgart: Kohlhammer, 1934. Pp. vii + 173. RM. 7.50.—An effort is made in the book to clarify Dilthey's polemic against the idea that descriptive psychology can lay claim to being a natural science. According to Dilthey it was influenced by the epoch of the natural sciences in which it arose. The author studies the nature of scientific construction, showing that the psychology challenged by Dilthey lays no claim to being of the nature of the natural sciences. The criticism is directed both against the standpoint taken by Dilthey and against psychology's claiming to be a science until it accepts experimental methods, as has been shown by Wundt. An attempt is made to arrive at a searching analysis of Dilthey's apparent contradictions in his polemic.—*M. v. d. Groeben* (Göttingen).

2560. Harter, K. *Eine verbesserte Temperaturorgel und ihre Anwendung auf Insekten und Säugetiere*. (An improved temperature regulator and its use with insects and mammals.) *Biol. Zbl.*, 1934, 54, 487-507.—The instrument maintains a temperature gradation within a closed compartment. Four equally spaced thermometers indicate the temperature gradient along the length of the compartment as the whole range of temperature is raised or lowered. Illustrations are given of the determination of optimal temperature conditions of thermotaxic insects and of mice.—*E. R. Hilgard* (Stanford).

2561. Henry, F. M., & Brown, C. W. *An improvement of the Heron maze recorder*. *J. gen. Psychol.*, 1934, 11, 216-217.—A minor improvement in the automatic recording device for use in animal psychology previously described by Heron (*J. comp. Psychol.*, 1933, 16, 149-158).—*H. Cason* (Wisconsin).

2562. Kallen, L. A., & Polin, H. S. *A physiological stroboscope*. *Science*, 1934, 80, 592.—This physiological stroboscope, developed primarily for the study of the vocal cords during phonation, permits the subject to take any tone or series of tones arbitrarily, the stroboscope automatically responding to the variation as it occurs and thus making it possible to follow the cordal configuration throughout a tonal transition. The instrument is briefly described.—*P. Seckler* (Charity Organization Society, Hartford, Conn.).

2563. Kern, H. *Kant und die deutsche Revolution*. (Kant and the German revolution.) *Z. Menschenk.*, 1934, 10, 157-163.—The author shows that Kant's philosophical standpoint is logocentric. He is unaware of the experiences of life that are outside the sphere of logic; his primacy of practical reasoning means primacy of will over intellect; his moral teaching is against any vitality; as advocate of a formal sense of duty, void of content, he lacks the concept of racial differences in mental level and their innate values. He belongs to the Graeco-Judaic group of oriental mentality (a synthesis of Socrates and Paul); his idealism is founded on rationalism. The German revolution, which draws its strength from the domain of the irrational, must consider him its opponent.—*M. Kieszig* (Markkleeberg).

2564. Klemm, O. [Ed.] *Bericht über den XIII. Kongress der Deutschen Gesellschaft für Psychologie*. (Report of the thirteenth congress of the Deutschen Gesellschaft für Psychologie.) Jena: Fischer, 1934.—(Not seen).

2565. Klemm, O. [Ed.] *Psychologie des Gemeinschaftsleben. Bericht über den XIV. Kongress der Deutschen Gesellschaft für Psychologie in Tübingen vom 22.-26. Mai, 1934*. (The psychology of social life.) Report of the fourteenth congress of the Deutschen Gesellschaft für Psychologie, held in Tübingen, May 22-26, 1934.) Jena: Fischer, 1935. Pp. 317. RM. 18.00.—(Not seen).

2566. Langlie, T. A. *A new device for studying learning*. *J. gen. Psychol.*, 1934, 11, 218-223.—A learning device is described in which the types of reactions, errors, time, and trials are automatically recorded.—*H. Cason* (Wisconsin).

2567. Lauer, A. R. Synchronous timing device. *J. gen. Psychol.*, 1934, 11, 213-214.—A G.E. synchronous phonograph motor is used in this semi-portable timing device, which offsets some of the disadvantages of the pendulum. The device is inexpensive, positive in action, and accurate.—H. Cason (Wisconsin).

2568. Luckiesh, M., & Moss, F. K. A visual thresholdometer. *J. opt. Soc. Amer.*, 1934, 24, 305-307.—Threshold visibilities are determined by varying the densities of filters placed over artificial pupils in a spectacle-like contrivance. The filters vary continuously from a transmission of 2% to 80% and are calibrated arbitrarily on the basis of density. The authors point out the usefulness of the device, especially in making possible quick comparisons of relative visibilities where complex factors almost defy analysis.—M. R. Stoll (Mass. Eye & Ear Infirmary).

2569. Mahalanobis, P. C. [Ed.] *Sankhyā. The Indian journal of statistics.* Calcutta: Art Press. Vol. 1, Part 1, 1933. Pp. 154. 9s.—R. R. Willoughby (Clark).

2570. McLellan, S. G. What is psychology? Halifax: F. King, 1934. Pp. 119. 1/6.—This book is the 1933-34 series of twelve lectures given on the popular aspects of psychology at the Y.M.C.A., Halifax. Self-confidence, mind mastery, instinct control and concentration are some of the topics treated.—M. H. Erickson (Eloise Hospital).

2571. Schröder, H. E. Voraussetzungen zu einer Menschenkunde auf Klages'scher Grundlage. (Pre-suppositions for a science of man upon Klages' basis.) *Z. Menschenk.*, 1934, 10, 111-115.—Following an introductory polemical section, the writer stresses Klages' view that the difference between man and animals is not to be found in man's possession of a mind but in the vital sphere itself. In man, bodily sensation comes to fall under the domination of mental intuition, while in animals mental intuition is controlled by bodily sensation. This difference must be realized before a science of man is possible.—J. Deussen (Markkleeborg).

2572. Seashore, C. E., & Seashore, R. H. Elementary experiments in psychology. (Rev. ed.) New York: Holt, 1935. Pp. vii + 219. \$1.35.—This revision of the 1908 edition "presents a series of experiments designed for use in large classes without expensive equipment and with the emphasis upon psychological principles rather than upon the use of instruments." There are 42 chapters with groups of experiments on topics such as general vocabulary, visual after-images, auditory pitch and intensity, Weber's law, apperception, reflexes in the frog, serial action, etc.—R. H. Brown (Clark).

2573. Skaggs, E. B. A textbook of experimental and theoretical psychology. Boston: Christopher, 1935. Pp. 426. \$4.00.—This text, designed for the elementary course, attempts to disclose the experimental facts of human psychology, the latter conceived as a branch of biology and as concerning itself with "the interaction between man and his environ-

ment . . . together with the mental events that accompany this interplay." Mind is regarded, however, as being but an epiphenomenon. An introductory chapter delimits the field but indicates its relations to kindred sciences, stresses the necessity for adherence to the doctrine of determinism, and briefly sketches the historical setting of modern psychology. The anatomical and physiological basis of consciousness and behavior provides the content of the second chapter. Eighteen successive chapters take up: vision, audition and the other senses, attention, imagery and association, perception, memory, ideation, feelings, emotions, unlearned activity, learning, control of action, work, sleep and dreams, reaction time, individual differences, personality. Each chapter is supplemented by a list of selected general references. The volume is freely illustrated with cuts, diagrams, charts, and tables.—F. A. Geldard (Virginia).

2574. Spranger, E. *Idees fondamentales de la psicologia com a ciencia de l'esperit.* (The fundamental ideas of psychology as the science of the spirit.) *Rev. Psicol. Pedag.*, 1934, 2, 239-256.—A Catalan translation of a monograph by Spranger.—M. E. Morse (Baltimore).

2575. Stoops, J. D. Society and the subjective mind. *Phil. Rev.*, 1935, 44, 99-119.—The mind is not an inner subjective process shut up within the individual. It is a mode of interaction between the organism and its environment. Any chasm between mind and its objects is the illusory product of a false theory of knowledge. The inner subjective mind is a genuine reality when it is developing and organizing objective interests. When it is converted into an end in itself, there develops a split in the personality. Those who have been brought up on the individualistic tradition ask: how is the individual to become social? Anthropology shows us that the individual has always been an organic part of social life. Our subjective personal life is generated only as the individual learns to control and organize his environment. All social advance is first projected in the minds of individuals. When old customs are dissolving and newer modes of behavior are projected in imagination but not yet adopted in social or public practice, beliefs and ideas are subjective. The subjective is not opposed to the social. It is the process through which society is made progressive and kept intelligent.—M. F. Martin (West Springfield, Mass.).

2576. Thurstone, L. L. Unitary abilities. *J. gen. Psychol.*, 1934, 11, 126-132.—The method of isolating unitary abilities which is described was devised especially for test data, but it may also be applicable to other types of variables. The author believes that the unitary abilities have genetic significance and that it will eventually be possible to identify the special abilities genetically.—H. Cason (Wisconsin).

2577. Willms, W. Die neuere Entwicklung der Geräuschmessung. (The recent development of noise measurement.) *Forsch. Fortsch. dtsh. Wiss.*, 1934, 10, 383-385.—A standardized artificial ear, sensitive to a wide range of intensities, was constructed. Studies in intensity and clang analysis

were undertaken. It is difficult to make inferences from the objective findings about subjective impressions. Hence attempts were made to plot annoyance curves.—*J. Deussen* (Markkleeberg).

2578. Zechel, G., & Morgenstern, O. A timing device for taking motion pictures. *Science*, 1935, 81, 23-24.—The description of a simple apparatus which is within the financial scope of any laboratory and yet constructed precisely and sturdily to withstand long use. The apparatus was built to operate the camera in exactly equal intervals, adjustable to any interval required, over long periods of time, and synchronously to put into action a source of light for each individual exposure. The article includes two figures and one table.—*P. Seckler* (Charity Organization Society, Hartford, Conn.)

[See also abstracts 2749, 2765, 2890, 2950, 3046.]

#### SENSATION AND PERCEPTION

2579. [Anon.] The international commission on illumination. *Science*, 1934, 80, 553-554.—*P. Seckler* (Charity Organization Society, Hartford, Conn.)

2580. Atkinson, T. G. Oculo-refractive cyclopedia and dictionary. (2nd rev. ed.) Chicago: Professional Press, 1934. Pp. 384. \$5.00.—*R. R. Willoughby* (Clark).

2581. Bartley, S. H., & Fry, G. A. Indirect method for measuring stray light within the human eye. *J. opt. Soc. Amer.*, 1934, 24, 342-347.—The amount of stray light falling on the fovea from a bright object seen in the periphery was measured by equating its effect on the increase in the differential threshold with that of "substitute" stray light of known intensity. Two types of test object were used: a center spot which was made just noticeably brighter than a surrounding ring, and a bipartite field whose halves were made to differ just noticeably. With the latter only, results indicated some nervous interaction of periphery on fovea.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

2582. Basler, A. Farbige Schatten mit nur einer Lightquelle. (Colored shadows with only one source of light.) *Z. Sinnesphysiol.*, 1934, 65, 293-295.—Report of an experiment on colored shadows. A 100-candle-power lamp was set up behind a white transparent disk. Between disk and lamp was set up a strong post some 3 cm. distant from the white disk. When a screen covered with red cloth was interposed between light and post, a red shadow was thrown on the screen by the post. The fact that a red shadow is seen instead of a shadow of the complementary color is explained by certain physical properties of cloth with respect to light. This is demonstrated by the substitution of red gelatin paper for the cloth. In this case the shadow is green.—*M. G. Preston* (Pennsylvania).

2583. Bast, T. H., Eyster, J. A. E., West, R., Backus, O. L., Noer, R., & Krasno, M. Studies on the transmission and recording of auditory impulses from the dog's ear. *Anal. Rec.*, 1933, 55, Suppl. 4, 7.—(*Biol. Abstr.* IX: 2913).

2584. Beatty, R. T. Hearing in men and animals. London: G. Bell & Sons, 1932. Pp. 239. 12 s.—(Not seen).

2585. Davis, H., Derbyshire, A. J., Kemp, E. H., Lurie, M. H., & Upton, M. Experimental stimulation deafness. *Science*, 1935, 81, 101-102.—Experimental evidence is presented on the question of whether or not prolonged exposure to loud tones causes histological damage to the organ of Corti, or loss of sensitivity to sounds. Both the conditioned reflex method and electrical responses of ear and auditory nerve were used. Cats and guinea-pigs, divided into five groups, were exposed to tones of 600, 800, or 2,500 c.p.s. at various intensities and for various lengths of time up to 75 days. Results indicate that the frequency as well as the intensity of the exposure tone may be an important factor in determining whether or not the inner ear is damaged. Intense exposure may cause extensive loss of hearing. Considerable variation in individual differences is also indicated. The zone of greatest loss of sensitivity as determined electrically does not necessarily coincide in frequency with the exposure tone. Losses and pathological lesions are widespread, but the more favorable cases of moderate damage support the "place" theory of pitch perception. Experiments now in progress seek to extend the correlation of losses shown by the electrical method with loss of response by the conditioned reflex method.—*P. Seckler* (Charity Organization Society, Hartford, Conn.)

2586. Fernberger, S. W., Viteles, M. S., & Carlson, W. R. The effect of changes in quality of illumination upon visual perception. *J. appl. Psychol.*, 1934, 18, 611-617.—The experiment is an outgrowth of an industrial investigation involving the use of standard Mazda (white-yellow tinge) and C2 Mazda (blue-daylight) lamps in removing dark hairs and foreign material from a white woven flannel. From 1 to 7 gray threads on pieces of white flannel were presented in a tachistoscope under standard Mazda and mercury lamps of 18 foot-candles illumination and daylight Mazda of 18 and 8 foot-candles illumination. The results (based on six students) indicate that blue daylight C2 Mazda lamp (8 foot-candles) gives the smallest limens and is most efficient. Increased attention and greater visual sensitivity for short waves in twilight or dark-adapted vision are two important factors considered in connection with the results. The findings of this experiment in regard to reduced intensity of illumination are not in agreement with previous industrial experiments and may not be applicable to the industrial situation, since the records were obtained under short experimental periods and general artificial illumination.—*R. S. Schultz* (Psychological Corporation).

2587. Ferree, C. E., & Rand, G. Contrast induced by color so far removed into the peripheral field as to be below the threshold of sensation. *J. gen. Psychol.*, 1934, 11, 193-197.—In previous papers (*J. gen. Psychol.*, 1932, 7, 466-472; 1933, 9, 450-452) three situations were described in which contrast sensations were aroused by colors which were not sensed. In

the present article another set of conditions is described under which contrast can be sensed when the exciting stimulus is below the threshold of sensation.—*H. Cason* (Wisconsin).

2588. Geldard, F. A. Flicker relations within the fovea. *J. opt. Soc. Amer.*, 1934, 24, 299-302.—In order to determine whether it is justifiable to base a theory of contrast and after-images on the assumption that excitation of some foveal cones may tend to inhibit, instead of facilitating, the response of others, the author determined the critical flicker frequency for half of the foveal field when the brightness of the other half was systematically varied between 0 and 494.4 ml. For two observers, whose ranges were distinctly different, critical frequency in the test field was lowest when the inducing field was not illuminated, and tended to be at a maximum when the two fields were of approximately the same brightness. Since it appears from these data that stimulation of foveal cones tends to facilitate response of adjacent cones just as in non-foveal areas, the proposed explanation for contrast and after-images is rejected. Other relevant data are briefly discussed.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

2589. Geldard, F. A., & Gilmer, B. v. H. A method for investigating the sensitivity of the skin to mechanical vibration. *J. gen. Psychol.*, 1934, 11, 301-310.—The authors describe an adequate method and an efficient apparatus for the investigation of skin sensitivity to mechanical vibration.—*H. Cason* (Wisconsin).

2590. Gertz, H. Till den oftalmoskopiska belysnings teori. (Contribution to the theory of ophthalmoscopic illumination.) *Hygiea, Stockh.*, 1934, 96, 833-838.—Gertz proposes to substitute for the customary use of a doubly projected image in ophthalmoscopic work, a simplified method which uses the immediately projected image of the retina.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

2591. Gifford, S. R. Some notes on the treatment of strabismus. *Brit. J. Ophthalm.*, 1935, 19, 148-160.—*R. J. Beitel, Jr.* (Clark).

2592. Goodfellow, L. D. The tactual perception of musical intervals. *J. Franklin Inst.*, 1933, 215, 731-736.—Four intervals were selected for use in this experiment in discrimination: two consonance (perfect fifth and octave) and two dissonance (minor second and major seventh). They were produced by two trombones chording on various parts of the scale. A series of victrola records was made containing these intervals in random order. These records were used throughout the experiment. A series of 60 intervals was played over the Gault teletactor, and each of 20 observers sought to identify each one by its tactual pattern. Each subject also undertook to identify the same patterns by ear from the loud-speaker. Results were scored for correct identifications of intervals and for discriminations between consonance and dissonance. Correlation between identifications by tactual and auditory stimulation was  $.53 \pm .11$ ; for discrimination between consonance and dissonance it

was  $.48 \pm .12$ . In the next place the experimenter, employing 11 subjects, undertook to discover the effect of ear training upon tactual performance. Average initial and final tactual scores on identification were 22.5 and 44.3 respectively; on discrimination of intervals, 46.1 and 75.5. Finally, 6 subjects were employed in a reverse procedure to discover the effect of tactual training upon auditory performance. The initial and final average auditory scores on identification were 33.5 and 60.7 respectively; on discrimination of intervals, 60.5 and 89.9 respectively. Finally, the musically trained excel the untrained in their first attempts at tactual identification and discrimination. On the whole, the results suggest that the processes in question are a central rather than a sense-organ function. It is regarded as probable that the deaf, by use of the vibro-tactile senses, may be enabled to appreciate the harmony of compositions that they now enjoy merely because of their rhythm.—*R. H. Gault* (Northwestern).

2593. Goodfellow, L. D. The sensitivity of various areas of the body to vibratory stimuli. *J. gen. Psychol.*, 1934, 11, 435-440.—The author studied the relative sensitivity of different areas of the skin to such mechanical vibrations as those transmitted by the Gault teletactor. A wide range of differences in sensitivity was found for different areas of the skin.—*H. Cason* (Wisconsin).

2594. Goodfellow, L. D., & Ilieva, M. L. On the intensity criterion for vibro-tactile discrimination. *J. gen. Psychol.*, 1934, 11, 441-444.—Experimental results are given showing that S's respond to more than mere intensity differences when using the Gault teletactor.—*H. Cason* (Wisconsin).

2595. Grunert, K. Die Dehnsucht des Auges (Myopie) und ihre Behandlung. (Myopia and its treatment.) Munich: Lehmann, 1934. Pp. 161. RM. 7.—*K. Grunert* (Bremen).

2596. Hartridge, H. An experiment in favour of the resonance theory of hearing. *Rep. Brit. Ass.*, 1933, 536.—(*Biol. Abstr.* IX: 2921).

2597. Heymann, H. W. Ueber die Farbe, das Farbige und das Sehen. (On color, the colored, and seeing.) Würzburg: Triltsch, 1933. Pp. 97.—(Not seen).

2598. Hippius, R. Erkennendes Tasten als Wahrnehmung und als Erkenntnisvorgang. (Tactile exploration as perception and as a process of recognition.) *Neue psychol. Stud.*, 1934, 10, No. 5. Pp. 163. RM. 8.—In a study of the processes of purely tactile recognition of objects it was found that these processes are intimately connected with feeling, volition and thinking. The first part of the article deals with tactile perception, the second with tactile recognition. Both these processes take certain typical courses according to the attitudes of the total personality.—*R. Hippius*.

2599. Hirschberg, E. Ueber die Abhängigkeit der Empfindungszeit des Gesichtssinnes vom zeitlichen Verlauf des Reizanstieges. (The dependence of the sensation time of the visual sense upon the temporal

course of the stimulus onset.) *Z. Biol.*, 1930, 90, 81-96.—(*Biol. Abstr.* IX: 2922).

2600. Howells, T. H., & Schoolland, J. B. An experimental study of speech perception. *J. gen. Psychol.*, 1934, 11, 337-347.—The speech-perception test devised presented by means of phonograph records a series of speech sounds of varying difficulty in interpretation, and the S's were classified with respect to their ability to perceive the spoken words. Differences in auditory acuity between these same individuals were also measured. It was found that the ability to hear speech was not analyzable into elementary factors or acuity thresholds. The correspondence between speech perception and auditory acuity scores was low, indicating that the acuity factor in hearing has been over-estimated.—*H. Cason* (Wisconsin).

2601. Hughson, W. A second experimental method for increasing auditory acuity. *Science*, 1935, 81, 232.—"Experiments designed to obstruct the cochlear aqueduct in cats have resulted in a marked increase in the intensity of spoken voice and pure tones transmitted by the operated ear. Without histologic proof of actual occlusion, withdrawal of fluid from the labyrinth and the resulting decrease in efficiency of the ear by intravenous injection of a hypertonic NaCl solution has been definitely obviated by the experimental procedure."—*R. J. Beitel, Jr.* (Clark).

2602. Judd, D. B. A Maxwell triangle yielding uniform chromaticity scales. *J. opt. Soc. Amer.*, 1935, 25, 24-35.—A colorimetric coordinate system has been found by trial and error whose Maxwell triangle has the useful property that the length of any line on it is a close measure of the chromaticity difference between the stimuli represented at the extremes of the line. Such accurate chromaticity scales may be derived from this triangle merely by stepping off equal intervals on it that it has been called the "uniform-scale triangle." The definition of the system is given, and also a comparison of experimental sensibility data with corresponding data derived from the triangle. An important application of this coordinate system is its use in finding from any series of colors the one most resembling a neighboring color of the same brilliance, for example, the finding of the nearest color temperature for a neighboring non-Planckian stimulus. The method is to draw the shortest line from the point representing the non-Planckian stimulus to the Planckian locus.—*D. B. Judd* (Bureau of Standards).

2603. Karbowski, M. Die anatomischen und physiologischen Grundlagen des Farbensehens. (The anatomical and physiological bases of color vision.) *v. Graefes Arch. Ophthalm.*, 1933, 130, 469-487.—(*Biol. Abstr.* IX: 2923).

2604. Katona, G. Color-contrast and color-constancy. *J. exp. Psychol.*, 1935, 18, 49-63.—Description of a series of experiments the results of which establish certain criteria of distinction between color-constancy and color-contrast.—*H. W. Karn* (Clark).

2605. Lindworsky, J. Consciousness versus mechanisms in the theory of perception. *J. gen. Psychol.*,

1934, 11, 369-378.—The author criticizes the use of physiological mechanisms sometimes thought of as explaining complicated perceptual operations, opposes the Gestalt psychology of the Wertheimer school, and proposes a complete discarding of concepts of brain mechanisms.—*H. Cason* (Wisconsin).

2606. Löwenstein, O. Experimentelle und klinische Studien zur Physiologie und Pathologie der Pupillenbewegungen mit bes. Berücks. d. Schizophrenie. (Experimental and clinical studies on the physiology and pathology of pupil movements, with special reference to schizophrenia.) *Mschr. Psychiat. Neurol.*, 1933, Beih. 70. Pp. 181.—(Not seen).

2607. Müller, G. E. Ueber die Entstehung der elektrischen Gesichtsempfindungen. (Concerning the origin of electrical visual sensations.) *Z. Sinnesphysiol.*, 1934, 65, 274-292.—A review of experimental evidence from the work of Schwarz, Brenner, Schelske, Velhagen, Best, Achelis, Merkulow, Fisher, Müller, and others is given, together with a theoretical discussion of sensations following electrical phenomena in the visual apparatus. Two principal problems are discussed: (1) whether these experiences are to be referred to events in the optic nerves or to retinal structures, and (2) what changes in chromatic quality and in the properties of the threshold are correlated with changes in the visual experience and with brightness adaptation. Müller believes that the evidence indicates that electrical visual sensations must be referred to events occurring in the retinal structures.—*M. G. Preston* (Pennsylvania).

2608. Müller, K. Untersuchungen über Simultanschwellen der Haut (Tastkreis) bei bewegten Reiz. (Investigations on simultaneous thresholds of the skin—touch circle—with moving stimuli.) *Dtsch. Z. Nervenheilk.*, 1932, 125, 286-291.—(*Biol. Abstr.* IX: 2927).

2609. Ostwald, W. Colour science. Part I. Colour theory and standardization. Part II. Applied colour science. London: Winsor & Newton, 1934. Pp. xviii + 141; xii + 173.—(Not seen).

2610. Perls-Posner, L. Erscheinungen des simultanen Kontrastes und der Eindruck der Feldbeleuchtung. (The phenomenon of simultaneous contrast and the influence of illumination of the field.) Pforzheim: Weberdruck, 1934. Pp. 44.—The problem of study is whether and to what extent the visibility of a certain illuminated field and its pattern are influenced by the surrounding color contrast. Comparison was made of the contrast which a pattern sustains under the influence of a pigmented ground with the contrast which the same pattern sustains under the influence of an unpigmented ground. Findings show a difference between the two, and the strength and type of retinal stimulation vary with ground pigmentation. Colored shadows play into the entire stimulation of a pattern, and tinted backgrounds have an influence lying between highly lighted backgrounds and pigmented backgrounds.—*L. Perls-Posner* (Johannesburg).

2611. Ponthus, P. Etude des facteurs physiques qui conditionnent la sensibilité aux couleurs des parties périphériques de la rétine. (A study of the physical factors which condition color sensitivity in the peripheral areas of the retina.) *J. Physiol. path. gén.*, 1932, 30, 910-928.—(*Biol. Abstr.* IX: 2930).
2612. Purdy, D. M. Double monocular diplopia. *J. gen. Psychol.*, 1934, 11, 311-327.—This report describes the visual phenomena of a squinter who possessed in each eye an acquired or anomalous system of localization in addition to the normal system. In consequence, he experienced diplopia not only in binocular vision but in vision with either eye alone. This monocularly diplopic vision probably originated at a very early period in the S's life. The existence of two anomalous systems, rather than merely one, seemed to be connected with the absence of pronounced ocular dominance. The anomalous systems were devoid of any functional value. There was a complete absence of the normal binocular phenomena of dynamic and static fusion of disparate images. In place of binocular color mixture, the subject reported a perception of two colors as occupying the same place at the same time.—*H. Cason* (Wisconsin).
2613. Révész, G. "Tonsystem" jenseits des musikalischen Gebietes, musikalische "Mikrosysteme" und ihre Beziehung zu der musikalischen Akustik. ("Tone systems" outside of the musical range, musical "microsystems" and their relation to musical acoustics.) *Z. Psychol.*, 1935, 134, 25-61.—The author discusses his two-component tone theory, the multiple nature of sense perception, the octave as a basic experience, and the bases of musical quality. He then considers "interval" (quality differences) and melody experiences with high tones outside the musical range, especially in the light of the work of Schöle and Werner. He concludes that their "microsystems" in no way detract from the two-component theory, but that the latter is helpful in explaining and describing their findings.—*R. T. Ross* (Yale).
2614. Richardson, E. G. Sound; a physical textbook. (2nd ed.) New York: Longmans, Green, 1935. Pp. 326. \$5.50.—*R. R. Willoughby* (Clark).
2615. Schroer, H. Ueber Somatisierung und Objektivierung von reinen Temperaturreizen. (On somatization and objectivation of pure temperature stimuli.) *Dtsch. Z. Nervenheilk.*, 1933, 126, 162-175.—(Not seen).
2616. Schütt, H. C. Ueber das haptische Halbieren von Kreisbogen bzw. von Flächenwinkeln. (The haptic halving of arcs or of angular surfaces.) *Zeulenroda* (Thür.): Sporn, 1934. Pp. 20.—The ability to divide on a purely haptic basis an arc into two equal parts was investigated. Only rotatory movements of the articulation were allowed. The accuracy of halving was expressed by a number obtained by dividing the smaller half of the arc by the larger one. This value was around .95, and often even 1.00. If the subject uses articulations with short arms the division is more accurate than when using articulations with longer arms. There is no difference in accuracy as between the right and left hands or as between move-
- ments in horizontal and vertical planes.—*H. C. Schütt* (Flensburg).
2617. Shaad, D. J. Binocular brightness summation in dark adaptation. *Arch. Ophthalm., Chicago*, 1934, 12, 705-708.—The author reports the results of a study in binocular summation done under conditions of dark adaptation. Binocular fixation was used and thresholds were found for various sizes of stimuli for monocular stimulation and for binocular stimulation. It was shown that there was an average 30% decrease in threshold with binocular stimulation of corresponding retinal areas, but no decrease when non-corresponding areas were stimulated or when two non-adjacent areas in a single eye were stimulated. Earlier work is briefly reviewed and there is some discussion of the various proposed explanations of summation.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).
2618. Sheard, C. Considerations regarding the analysis and interpretation of data on ocular convergence and accommodation. Part IV. *Amer. J. Optom.*, 1935, 12, 52-61.—The author is concerned here with the applications of the methods of testing and of the fundamental principles relative to accommodative and convergence functions to the problem of the proper coordination of the visual functions in the act of comfortable, distinct and binocular single vision.—*R. J. Beitel, Jr.* (Clark).
2619. Skramlik, E. v. Die Sicherheit der subjektiven Zeitbeurteilung. (The certainty of subjective estimation of time.) *Forsch. Fortsch. dtsch. Wiss.*, 1934, 10, 326-327.—Man has no absolute memory for time, and practice has no lasting effect. The period of one minute was estimated accurately (with an error of 0.1%).—*J. Deussen* (Markkleeberg).
2620. Teplov, B., & Jakovleva, S. Ueber die Gesetze der räumlichen und zeitlichen Farbmischung auf der Netzhaut. (The laws of spatial and temporal color mixture in the retina.) *v. Graefes Arch. Ophthalm.*, 1933, 130, 463-468.—(*Biol. Abstr.* IX: 2937).
2621. Tokay, L. Blindheit bei doppelseitiger Mikrogyrie der Calcarinagegend. (Blindness through bilateral microgyria of the calcarine region.) *v. Graefes Arch. Ophthalm.*, 1933, 129, 426-439.—Report of a case showing alcoholic heredity, very early blindness, and epilepsy at the age of five. There is dissymmetrical atrophy in the frontal lobe, and bilateral atrophy in the calcarine zone. There is a degeneration of the optical radiations, the anterior quadrigeminal tubercula, and the lateral geniculate body. The pulvinar is intact; this fact shows that it is not a direct visual center but is only crossed by corticofugal fibers which expand in the quadrigeminal tubercula.—(Courtesy *Année psychol.*)
2622. Tullio, P., & Jellinek, A. Methodik der Untersuchung der Orientierungsschallreflexe. (Methods for investigating auditory orientation reflexes.) *Handb. biol. Arb. Meth.*, 1932, Abt. V, Tl. 7. Pp. 90.—(Not seen).
2623. Türkheim, H. Die Sinnesphysiologie der Mundhöhle und der Zähne. (The sensory physiology

of the buccal cavity and the teeth.) Leipzig: Thieme, 1921, 1934. Pp. 55.—(Not seen).

2624. Ulrich, W. *Über die direkte Wahrnehmung von Bewegungen mit Hilfe des Drucksinnes.* (Concerning the direct apprehension of movement through the pressure sense.) Jena: Sporn, 1934. Pp. 23.—The author has attempted to determine the limits for consciousness of linear and rotary movement in different cutaneous regions. Distinction is made between direct consciousness of movement, when apprehension takes place immediately, and indirect, when it takes place after the passing of time. In linear apprehension the individuals vary from 0.002 cm./sec. to 0.035 cm./sec. Rotary movement is more easily perceptible on the finger-tips, variability ranging from 1°/sec. to 34°/sec. In other parts of the body sensitivity is much less and variation great. The apparatus used is described in the book and findings are given in tabular form. The literature of the subject is evaluated and interesting comparisons are made of visual and cutaneous acuity in apprehension of linear and rotary movement.—E. v. Skramlik (Jena).

2625. Verhoeff, F. H. Effect on stereopsis produced by disparate retinal images of different luminosities. *Arch. Ophthalm., Chicago*, 1933, 10, 640-645.—(*Biol. Abstr.* IX: 2938).

2626. Walls, G. L. Human rods and cones. The state of knowledge. *Arch. Ophthalm., Chicago*, 1934, 12, 914-930.—A concise, critical review of data concerning the structure and functions of human visual cells considered under the following headings: size and form; numbers, absolute and relative; relationship to contiguous structures; cytology and cytogeny; locus of reception; vision per se; and color vision. A comprehensive bibliography is included.—M. R. Stoll (Mass. Eye & Ear Infirmary).

2627. Weidlich, K. *Farben und Farben-Empfindung.* (Color and color sensation.) (3rd ed.) Stettin: Saran, 1933. Pp. 38.—(Not seen).

2628. Weizsäcker, V. v. *Der Gestaltkreis, dargestellt als psychophysiologische Analyse des optischen Drehversuches.* (The Gestalt circle, represented as a psychophysiological analysis of the optic turning experiment.) *Pflüg. Arch. ges. Physiol.*, 1933, 231, 630-661.—(*Biol. Abstr.* IX: 2942).

[See also abstracts 2568, 2577, 2647, 2649, 2655, 2700, 2706, 2717, 2726, 2728, 2736, 2905, 2927, 2962.]

#### FEELING AND EMOTION

2629. Deutsch, H. *Über einen Typus der Pseudoaffektivität ("als ob").* (On a type of pseudo-affectivity—the "as ob.") *Int. Z. Psychoanal.*, 1934, 20, 323-335.—This type, which the author calls "als ob" while explicitly denying any connection with Vaithinger's philosophy, is neither the psychotic unemotional nor the hysterical affective type. There is a lack of affectivity which nevertheless coexists with formal adaptive responses, so that the person acts "as if" he possessed the appropriate feelings.

Incomplete or temporary identification with any and all suitable objects is a characteristic. Analysis of the type shows a lack of development of the superego. In one instance the patient was a society girl who was brought up in a situation of infrequent and then only formal contacts with the parents, with a constant replacement of nurses. Two cases are given and discussed.—H. D. Spoerl (St. Johnsbury, Vt.) [See also abstracts 2671, 2756, 2765, 2817, 3049.]

#### ATTENTION, MEMORY AND THOUGHT

2630. Bedell, R. C. The relationship between the ability to recall and the ability to infer in specific learning situations. *Bull. northeast Mo. St. Teach. Coll.*, 1934, 34, No. 9. Pp. 55. \$1.00.—A test was devised to measure the ability to recall and the ability to infer. It consisted of (1) thirty paragraphs, each one containing five or more facts related to one science principle, (2) a section of multiple-choice questions involving factual recall, and (3) a similar section involving the formation of inferences from the paragraphs. This battery was administered to 324 students in an eighth-ninth-grade general science course. The Terman Group Test of Mental Ability was also given. Statistical analysis of the results of these tests suggested that the ability to recall and the ability to infer were different, but not unrelated. The students in the lower 25% in intelligence scored scarcely better than chance in the inference section. Boys inferred better than girls, but the sexes were equal in recall ability and in intelligence. Although only 25% of the class possessed a fair ability to infer, this ability was quite influential in determining grades. A number of problems of psychological and pedagogical importance were suggested, among them the possibility of improving the ability to infer by specific training.—H. Schlosberg (Brown).

2631. Brown, H. B. An experience in identification testimony. *J. crim. Law Criminol.*, 1934, 25, 621-622.—In a laboratory experiment using college students as witnesses, a workman was instructed to enter the classroom and tinker with the radiator. Sixteen days later this workman and five others were lined up as "suspects" before the class. Out of 117 students, only 69% made correct identifications. Out of 17 students who had not even witnessed the radiator incident, five "recalled" the happening and tried to identify the man. "This experiment shows the unreliability of such testimony under favorable conditions and the writer hesitates to hazard a guess as to how reliable it would be under actual police-station conditions."—L. Ackerson (Institute for Juvenile Research).

2632. English, H. B., Welborn, E. L., & Killian, C. D. Studies in substance memorization. *J. gen. Psychol.*, 1934, 11, 233-260.—College students were tested for their recognition-retention of a passage of difficult prose by two contrasted types of test items: one reproducing almost verbatim portions of the text, the other requiring the recognition of the meaning when couched in entirely different words. Frequency of repetitions affected the verbatim items but not the

non-verbatim ones. Recognition of both kinds of items was better after 24 hours than immediately, but verbatim items showed an Ebbinghaus-like curve of forgetting thereafter while the non-verbatim items were apparently not forgotten at all over periods up to 70 days and in some cases showed a statistically reliable gain. These results are taken to indicate that substance learning differs not only from the learning of nonsense syllables but also from so-called logical learning in which the words of the original text are preserved.—*H. Cason (Wisconsin)*.

2633. Gulliksen, H. A rational equation of the learning curve based on Thorndike's law of effect. *J. gen. Psychol.*, 1934, 11, 395-434.—The author states in mathematical form certain propositions contained in Thorndike's law of effect, and argues that these same functions may be obtained by generalizing Thurstone's learning theory. From these functions he develops an equation of the learning curve which gives the relation between cumulative errors and cumulative correct responses.—*H. Cason (Wisconsin)*.

2634. Mierke, K. Experimentell-psychologische Erkenntnisse über das Übungsproblem. (Contributions of experimental psychology to the problem of learning.) *Z. pädag. Psychol.*, 1934, 35, 416-423.—Reviews under the headings of (1) fatigability, (2) improvability, (3) susceptibility, (4) motivation, (5) habituation, (6) "Objektion" (according to Ach: urge to relieve ego of its experience, i.e., the projection of subjective qualities into objects), and (7) perseveration phenomena, various principles and laws established by experimental psychology. Mentions especially contributions of Kraepelin, Ach, and others. Stresses volitional aspect of learning. Defines: learning (Übung) as the conscious and willed maximal development of existing abilities, i.e., learning is intentional improvement of performance.—*W. Reitz (Chicago)*.

2635. Miles, W. R. Training, practice, and mental longevity. *Science*, 1935, 81, 79-87.—This paper deals with normal longevity from a psychological point of view. It seeks to answer the question, "Can man through mental gymnastics and by the continuance of psychological wakefulness associated with professional or avocational activities insure himself with nature for something in life better than mere disposing memory or testamentary capacity?" The following topics are then discussed, statistical data and interpretations being given in appropriate cases: the old age test, longevity as a mental test, motility and motor functions, sensory and perceptual functions, learning and memory, intelligence and age, and old age as a test of practice. The author concludes: "The study of man in maturity shows that his psychological progress is not bound utterly to the lowest level of his physiological decline. Through appropriate training and practice, continued mental elasticity and organized effective control, he may extend mental longevity."—*P. Seckler (Charity Organization Society, Hartford, Conn.)*

2636. Mirenova, A. N., & Kolbanovski, V. N. Sravnitel'naya otsenka metodov razvitiya kombina-

tornykh funktsii u doshkol'nika. Eksperimenty na odnoi i tsvetnykh bliznetsakh. (A comparative evaluation of methods for the development of combinative functions in preschool children. Experiments with identical twins.) *Trud. med.-biol. nauchno-issled. Inst. Gorkogo*, 1934, 3, 104-118.—Five pairs of identical twins aged 5 to 5½ years were subjected to two months of training. One of the members of each pair was trained by the method of elementary figures (E) and the other by the method of models (M). The process of combination was much slower and much more difficult for the M subjects than for their partners. The M subjects, however, developed a great abundance and diversity of manipulatory skill, while among the E subjects such development appeared to be lacking. At the end of the training period, all of the M subjects showed better scores in the execution of the control figure than the E subjects. The free constructions executed by the M subjects were more complicated in intention and more complex in their execution than the constructions of the E subjects.—*B. Vishnevski (Leningrad)*.

2637. Müller, G. E. Ein Beitrag zur Eidetik. (Contribution to eidetic theory.) *Z. Psychol.*, 1935, 134, 1-24.—A case of an eidetic subject is given in whom, at the time of the first experiments when the subject was 21 years old, the characteristics of the young eidetic were found, i.e. (1) a mental image of a momentarily exposed visual field perseverated for a long time, and (2) this image showed a characteristic localization within the subjective visual field. Fifteen months later these images became verbal in character rather than "visual," and quickly lost their definitive character. The conclusion is that the personality type had changed.—*R. T. Ross (Yale)*.

2638. O'Neill, H. E., & Rauth, J. E. Eidetic imagery. *Cath. Univ. Amer. educ. Res. Monogr.*, 1934, 8, No. 2. Pp. 22.—A summary of the literature on eidetic imagery. A bibliography of 83 articles is appended.—*R. J. Beitel, Jr. (Clark)*.

2639. Perl, R. E. An application of Thurstone's method of factor analysis to practice series. *J. gen. Psychol.*, 1934, 11, 209-212.—Thurstone's simplified multiple factor method of analysis (Chicago, 1933) was applied to a practice series in an attempt to find a factor pattern which would describe the scores made in successive practice periods in a single task. The analysis was repeated for the following four tasks: "making gates," Whipple's symbol-digit test, a vocabulary form of substitution test, and an arithmetic test. The analysis, applied to scores of trials in a practice series of a task rather than to test in a battery, gives fairly similar results in the case of the four different tasks.—*H. Cason (Wisconsin)*.

2640. Peters, H. N. Mediate association. *J. exp. Psychol.*, 1935, 18, 20-48.—Objective and subjective results from nine experiments are presented. The conclusions concerning the existence of mediate association, which the author contends must naturally vary with the definition adopted, are as follows: (1) If the concept be defined as the tendency for two items to recur together in recall, because they have

previously been associated with a common item, the existence of this kind of mediate association is proven by the data of these experiments. (2) If the term be defined as a tendency for one item to arouse the other in recall when the common item is not present at the time, the concept is false. (3) The third possible definition assumes that one of the two items will arouse the other when the common item is perceptually or ideationally present at the time of recall. The present data support the truth of this concept.—*H. W. Karn* (Clark).

2641. Thorndike, E. L. The direct action of rewards upon mental connections and their indirect action via the stimulation of inner equivalents of the connections. *J. exp. Psychol.*, 1935, 18, 91-96.—The author shows that the strengthening by the attachment of the satisfying after-effect in multiple-choice experiments in which a new situation follows very soon after the after-effect of the previous connection is almost exclusively due to direct action on the connection, not to the incitement of an inner repetition of it.—*H. W. Karn* (Clark).

2642. Washburne, J. N. An electro-chemical theory of learning. *J. educ. Psychol.*, 1935, 26, 99-122.—"The present widely accepted hypothesis that learning is a change in synaptic resistances which are decreased by use and increased by disuse is reasonable but inadequate (because) it fails to show how it is physically possible for general external conditions to alter the number of repetitions necessary to lower synaptic resistance . . . (and because) it fails to account, among other things, for the fact that 'a sense of belongingness' affects very materially the results of repetition. . . ." "The Closure theory proposes that the fundamental change which occurs in human learning is a change in the patterns of the polarization of resting nerves. . . ." The permanence of polarization changes is attributable to the closure of the cerebral pattern. With this ground work and numerous other assumptions and identifications the author attempts to explain the effectiveness of frequency, recency, vividness, whole vs. part learning, spaced vs. "bunched" learning, and insight, trial and error learning, and the conditioned reflex.—*A. W. Melton* (Yale).

2643. Wood, T. W. The effect of approbation and reproof on the mastery of nonsense syllables. *J. appl. Psychol.*, 1934, 18, 657-664.—Approbation and reproof were found to be of practically equal value as incentives among a group of thirty college students for learning nonsense syllables. Galvanometric readings under proper experimental technique may be of value in ascertaining accompanying emotional states in praise and reproof.—*R. S. Schultz* (Psychological Corporation).

[See also abstracts 2648, 2671, 2693, 2772, 3022.]

#### NERVOUS SYSTEM

2644. Adrian, E. D. Discharge frequencies in the cerebral and cerebellar cortex. *J. Physiol.*, 1935, 83, 32-33P.—Spontaneous activity consisting of groups of sinusoidal waves at frequencies from 200 to 150 per sec. is found in the exposed cerebellar cortex

(vermis or lateral lobes) of anesthetized or decerebrate preparations. Electrical stimulation of the same region also gives similar frequencies. The spontaneous activity, as well as electrical stimulation, of the cerebrum gives a frequency of 40-50 per sec. In both cerebellum and cerebrum the waves spread some distance from the stimulated point and are due to a number of neurones firing off in phase. The fact that the normal activity of the cerebellar neurones occurs at such high rates suggests that the cerebellum may perhaps exert an inhibitory influence of the Wedensky type on some of the structures innervated by it.—*M. A. Rubin* (Clark).

2645. Adrian, E. D. The activity of nerve cells. *Rep. Brit. Ass.*, 1933, 163-170.—(*Biol. Abstr.* IX: 2945).

2646. Berger, H. Die physiologischen Bedingungen der Bewusstseinserscheinungen. (The physiological conditions of the phenomena of consciousness.) *Forsch. Fortschr. dtsch. Wiss.*, 1934, 10, 301-302.—Electrical vibrations accompany cerebral activity during waking and sleeping. The writer recorded an electroencephalogram (EG). The vibrations, which appeared in a rhythm of 1.3-4.7 sec., were conducted from a center in the neighborhood of the visual cortex. The EG cannot be correlated with consciousness in any purely quantitative way. The EG may be eliminated either through effacing or evoking of cerebral activity.—*J. Deussen* (Markkleeberg).

2647. Bishop, G. H., & Bartley, S. H. A functional study of the nerve elements of the optic pathway by means of the recorded action currents. *Amer. J. Ophthalm.*, 1934, 17, 995-1007.—Single electric shocks were applied at the level of the optic nerve of a rabbit. Above threshold strength the potential wave increases in amplitude, up to a maximum, as more fibers are activated. A second potential wave appears, later than the first, from a second group of fibers. With a still stronger stimulus a third and slower potential wave appears. Further stimulation does nothing; all the fibers have been stimulated. Although the optic thalamus cannot be adequately exposed, nevertheless from the knowledge of what is sent into the optic tract and from what comes out at the cortex something may be inferred. It is apparently here that summation of stimuli takes place. As the strength of the stimulus is increased the response in the cortex varies in two ways: (1) latent period of response decreases; (2) more fibers are activated. The optic and other regions of the cortex show continual electrical activity quite independent of specific stimulation from the periphery. Since the cortex is continuously active the impulse arriving there delivers its energy into a network of cells already activated. It seems probable that the visual impulse loses its individuality and that the act of seeing is essentially a modification of the pattern of already active cells.—*T. Karwoski* (Dartmouth).

2648. Campion, G. C., & Smith, G. E. The neural basis of thought. New York: Harcourt, Brace, 1934. Pp. 167. \$3.00.—A presentation of the neurological aspect of a theory of knowledge previously advanced

by the senior author. On the basis of Smith's essay on *The Evolution of the Mind*, which is here included, a fundamental psychological law is framed which it is hoped "will lead ultimately to a unification of views . . . and which will embrace our cognitive and affective states of consciousness in relation to the neural states by which they are conditioned." "The thesis is that the continuity of the trains of what we call 'thought' which are unceasingly passing through what we call our 'minds' during the periods of what we call 'consciousness' have their neural correlates in a continuity of neural impulse to and fro from thalami to cortex and from cortex to thalami along the multitudinous thalamocortical and corticothalamic paths in the thalamic fan or radiation." Index.—*D. Shallow* (Worcester State Hospital).

2649. De Crinis, M. *Anatomie der Hörrinde. Aus: Grundlage des physiologischen und pathologischen Geschehens der Gehörswahrnehmung.* (Anatomy of the acoustic cortex. From: The basis of the physiological and pathological processes of auditory perception.) Berlin: Springer, 1934. Pp. 44. RM. 6.—The author confirms the existence of sex differences in the structure of the transverse gyrus which were first described by Heschl. Studying this region with a new method of impregnation, the presence of Cajal's acoustic cells could be demonstrated. The author differentiates a narrower auditory zone from the rest of the temporal region. The latter is considered as the accessory auditory zone. The physiology and pathology of the functions of the auditory region are discussed in detail. It is stated that the auditory zone is responsible for the simple sensations; the more complicated auditory perceptions are based on the cooperation of other cortical regions with the auditory zone. With regard to the function of the acoustic cell it is assumed that it forms not alone but in connection with other cells, the morphological basis of auditory perception.—*M. de Crinis* (Cologne).

2650. DeSilva, H. R., & Ellis, W. D. *Changing conceptions in physiological psychology.* *J. gen. Psychol.*, 1934, 11, 145-159.—The authors summarize Paul Weiss' resonance theory and other contributions to the more dynamic conception of the nervous system. Weiss has shown that motor end-organs have the property of discriminatory reaction, and that the excitations from the central nervous system are irradiated to various end-organs. An impulse from the central nervous system along neighboring paths reaches several muscles but is responded to by only one. Weiss has also shown that different excitations capable of innervating two or more muscles coordinately may be sent along one neuron. He maintains that these two facts must be incorporated into the prevailing picture of nerve action.—*H. Cason* (Wisconsin).

2651. Dikshit, B. B. *Action of acetylcholine on the "sleep center."* *J. Physiol.*, 1935, 83, 42P.—Small doses of acetylcholine (0.1-0.5  $\nu$ ) were introduced, through trephine holes in the skull of the cat, into the lateral ventricle of the brain or into the hypothalamic

region. A condition closely resembling sleep resulted in from 10 to 30 minutes after injection and lasted for 2 to 3 hours. Controls with normal saline solution had no effect, while injections of 0.1 mg. of pilocarpine nitrate caused excitation.—*M. A. Rubin* (Clark).

2652. Fischer, M. *Fortgesetzte Untersuchungen über die Wirkungsweise des Nervus accelerans cordis.* (Continued experiments on the mode of operation of the accelerator nerve of the heart.) *Z. Biol.*, 1930, 90, 1-12.—(*Biol. Abstr.* IX: 2953).

2653. Gesell, R., Bricker, J., & Magee, C. *Action potentials of the "respiratory center."* *Proc. Soc. exp. Biol.*, N. Y., 1935, 32, 787-788.—Exploration with needle electrodes of the brain stem in dogs from thalamus through upper portion of the cervical cord revealed discrete potentials in the medulla and upper cervical cord, associated with respiration.—*H. Peak* (Randolph-Macon).

2654. Goldberg, N. [The brain—an apparatus for intelligence.] *Unser Schul*, 1935, 5, No. 2, 9-13.—A semi-popular discussion of brain mechanism in relation to intelligence. Short bibliography.—*D. Shallow* (Worcester State Hospital).

2655. Granit, R., & Therman, P. O. *Excitation and inhibition in the retina and in the optic nerve.* *J. Physiol.*, 1935, 83, 359-381.—The retinal action potential elicited by "white light" in the Hungarian frog was studied, and from its analysis correlations with events in the optic nerve were found. Some of the correlations are: the P I component of the retinal response is not associated with the discharge in the optic nerve; the positive component P II is associated with the discharge of impulses in the optic nerve; the negative P III is connected with inhibition of impulses. Interrelations of P II and P III and their manifestations are discussed. Flicker is interaction between excitation and inhibition, excitation being elicited as an off-effect during the dark intervals, inhibition being excited by the intervals of light. Evidence of synaptic interaction is found, and the results of this interaction are mirrored not only in the nervous discharge but also in the retinal action potential, which therefore must be held to be post-synaptic (i.e. localized in the retinal neurones). The small extra waves sometimes appearing on the retinal action potential are usually synchronized beats from the nerve. The significance of excitation and inhibition for various aspects of retinal physiology and vision are discussed.—*M. A. Rubin* (Clark).

2656. Grassmück, A. *Über den Einfluss der Nerven auf die Tonuschwankungen des Schildkrötenherzens.* (On the influence of nerves upon fluctuations in the tonicity of the turtle heart.) *Pflüg. Arch. ges. Physiol.*, 1934, 235, 1-14.—The author examines the effect of sympathicus and vagus by separate and simultaneous stimulations of the two nerves upon fluctuations in tonicity of the heart of *Emys lutaria*. Through the sympathicus the tonus is lowered and fluctuations in tonicity cease. The arrest in tonus by the sympathicus outlasts stimulation for a considerable time. Through the vagus the tonus of the heart is increased and the frequency of

tonus fluctuations often heightened. An after-effect is found only in rare cases. Each nerve chiefly affects the same, to a lesser degree the opposite half of the heart. Yet it happens not seldom that the nerves affect only the same side of the heart. Through a simultaneous stimulation of sympathicus and vagus only a decrease in tonicity and a lessening of the fluctuation take place, i.e., the same effect as if the sympathicus had been stimulated alone.—*W. Reitz* (Chicago).

2657. Grünthal, E. Newer results in the comparative anatomic investigation of the midbrain of mammals, particularly its structure in man. *J. nerv. ment. Dis.*, 1935, 81, 14-23.—The extraordinary variability of the structure of the hypothalamus is somehow fundamentally associated with the peculiarities of the individual mammalian classes and must be important for the individuality and existence of the different species. This may be assumed all the more since all other parts of the brain stem, according to our present knowledge of the facts, are considerably more uniform. The size of the hypothalamus remains measurably retarded in the ascending series in relation to the development of the cerebrum. The nuclear wealth of the thalamus rises significantly as far as the lower apes, in whom it possesses the richest organization. In the chimpanzee and in man the number of thalamic nuclei suddenly falls about one-quarter by the disappearance, above all, of a caudal nuclear group and of a large number of small nuclei lying in the midline. Bibliography.—*C. R. Atwell* (Boston Psychopathic Hospital).

2658. Harashima, S. The oxygen consumption of stimulated nerve. *J. cell. comp. Physiol.*, 1933, 3, 419-424.—(*Biol. Abstr.* IX: 2955).

2659. Hayasi, K., & Brücke, E. T. Über die Abhängigkeit der Nervenchronaxie von der Reizfrequenz. (On the dependence of the nerve chronaxy upon the frequency of stimulation.) *Pflüg. Arch. ges. Physiol.*, 1934, 235, 31-42.—The dependence of the chronaxy on the frequency of stimulation was investigated on N. accelerans of atropinized frogs and the heart vagus of turtles. The chronaxy does not simply increase continuously with a decreasing frequency of stimulation, as former investigations apparently had found, but the span of the chronaxy reaches a maximum at a certain frequency of stimulation. In most cases this maximum was found at frequencies of 6-8 per second. Neither by stimulations of heart nerves with different high rheobases nor by stimulations of different durations could it be demonstrated that these nerves had fibers of a different chronaxy. The observed dependence of chronaxy on frequency must therefore be ascribed to a change in the chronaxy of the fibers. It is assumed that there takes place, during the time of about a second, in the nerve after every excitation a process which is characterized by a relative quick increase followed by a slower decrease of the chronaxy. The form of this course is obtained by expressing the chronaxy as a function of the stimulus intervals. Depending upon their frequency, the various stimuli impinge upon

the nerve at different times during the increase, or decrease, respectively, of this process, i.e., at time periods in which the fibers show a different long chronaxy. The phase of temporary increase of the chronaxy is probably nothing other than the over-normal period of Adrian and K. Lucas. The change of the time excitability of the nerve with the variation of the interval between separate waves of excitations suggests the idea that the form of the process of the individual stimulations also changes with the frequency. This would make probable a new possibility of varying nervous excitations.—*W. Reitz* (Chicago).

2660. Hayasi, K., & Rittler, G. Die Erregbarkeit der Nerven nach Ablauf einer Erregungswelle. (Excitability of nerves after expiration of serial stimulations.) *Pflüg. Arch. ges. Physiol.*, 1934, 235, 43-49.—The experiments described (measurement of chronaxy of motor ischiadicus of the frog by condensator method) demonstrate the correctness of the assumption that the temporary increase of the chronaxy, itself a function of the frequency of stimulation, after a series of stimulations is an expression of the over-normal period (Adrian).—*W. Reitz* (Chicago).

2661. Jasper, H. H., & Carmichael, L. Electrical potentials from the intact human brain. *Science*, 1935, 81, 51-53.—A summary of the research of Hans Berger of Jena on electrical potentials from the human brain is followed by the authors' own investigations. Electrodes made of silver disks 1-2 cm. in diameter covered with flannel soaked in salt solution are placed on the skin surface, usually at opposite poles of the head. In one experiment needle electrodes inserted through the skin were used simultaneously with a pair of surface electrodes. The two records were practically identical in form. Action potentials during relaxation and quiet showed Berger's alpha waves, large rhythmic oscillations with a frequency of 8 to 12 cycles per second, and smaller oscillations, Berger's beta waves, quite variable in frequency, 25-50 per second. During sensory stimulation a complex series of waves appeared. Short "spiked" waves of muscular action currents were also recorded, most noticeably during heightened muscular tonus and restlessness. "Spontaneous" fluctuations which did not correlate with any organic rhythm were also found. The relation of these various phenomena to those reported by other investigators with other animals is considered. Differences between normal and pathological cases are presented.—*P. Seckler* (Charity Organization Society, Hartford, Conn.)

2662. Judenitsch, N. A. Der Einfluss der Ermüdung auf die Refraktärphase im Nervenmuskelpräparat. (The influence of fatigue upon the refractory phase in a nerve-muscle preparation.) *Pflüg. Arch. ges. Physiol.*, 1934, 235, 89-95.—The absolute refractory phase of the muscle nerve is not prolonged under the influence of fatigue. A combination of two stimulations, commencing with an interval of 3-5  $\sigma$  and more, produces a considerable increase of twitching in a fatigued muscle. The twitching produced by this double stimulation is larger than the sum of two separate twitchings. This is probably ascribable to a

reduction of the excitability in the end organs of the nerves, about the nature of which little is known.—*W. Reitz* (Chicago).

2663. Marchesani, O. Ueber die Befunde am Sehnerven bei Stirnhirnerkrankungen. (Findings concerning the optic nerve in diseases of the frontal lobe.) *Arch. Augenheilk.*, 1933, 107, 238-250.—Five cases of frontal lobe tumor, which differ in localization or stage, demonstrate that the symptoms vary considerably. Final nerve atrophy results from compression. The author, after reviewing suggested theories, can offer nothing satisfactory concerning central scotoma of the first stage.—(Courtesy *Année psychol.*)

2664. Monnier, A. M. Etude expérimentale du mécanisme physico-chimique de la subordination nerveuse. (An experimental study of the physico-chemical mechanism of nervous subordination.) *Arch. int. Physiol.*, 1933, 37, 337-409.—(*Biol. Abstr.* IX: 2959).

2665. Rashevsky, N. Outline of a physio-mathematical theory of excitation and inhibition. *Protoplasma*, 20, 42-56.—(*Biol. Abstr.* IX: 2960).

2666. Schmitt, F. O., Clark, G. L. & Mrgudich, J. N. X-ray diffraction studies on nerve. *Science*, 1934, 80, 567-568.—Analysis of X-ray diffraction photographs of nerve indicates what appears to be a fundamental similarity between the fine structure of the axis cylinder of nerve and that of other animal fibers such as hair, tendon and muscle. This report describes briefly the most prominent features of the photographs and their probable interpretation in terms of nerve structure.—*P. Seckler* (Charity Organization Society, Hartford, Conn.)

2667. Schweitzer, A. Die Sonderstellung des sacralen Parasympathicus bei der Irradiation autonomer Reflexe. (The peculiar function of the sacral parasympathicus in the irradiation of autonomic reflexes.) *Pflüg. Arch. ges. Physiol.*, 1934, 235, 110-125.—The problem of the functional role of parasympathic sacral nerves within the total frame of the vegetative nervous system was studied by means of irradiation of presso-receptor stimulations. A study of the motility of the bladder served as the indicator of the function of the autonomic sacral system. Additional investigations of the irradiation of presso-receptor reflexes were carried out with other autonomically innervated systems, such as gastric and respiratory. By decerebration experiments the problem was treated as to where, i.e. in which cerebral regions, irradiation takes place. Stimulations (acoustic, tactile, etc.) transmitted by way of the central nervous system almost always lead to an increase of the bladder tonus and a greater bladder contractility. A direct reflex effect of adequate presso-receptor stimulation upon the motility and tonicity of the bladder is not demonstrable; this is in contrast to the easy excitability of the bladder by stimuli transmitted from the central nervous system. There exists a close functional connection between the sacral parasympathicus and the central nervous system. Irradiation of presso-receptor stimulations resulted after a change

of conditions of the central nervous system in the process of which the experimental animals showed a sleep-like condition, in changes of contractility and tonicity of the bladder. The effect of different narcotics and narcotic conditions is seen in the bearing of these related pharmaca upon the central nervous system. The irradiation of the presso-receptor stimulation upon the respiratory centers and the stomach function does not depend upon the mentioned changes of condition in the central nervous system. The results indicate that an increase of the tonus of the parasympathicus in a partial area (vagus) of the vegetative nervous system may have a corresponding sympathicotonic condition in the autonomic sacral system. The reflex effect of the presso-receptors increases after decerebration. An irradiation of the presso-receptor stimulation could be demonstrated for respiration, but not for stomach and bladder. If the nucleus ruber is preserved there is a paradoxical effect, i.e. a stimulation of the sinus nerve influences respiration. The thalamic and hypothalamic centers of the midbrain are conjectured as places of irradiation of the autonomic reflexes.—*W. Reitz* (Chicago).

2668. Wachholder, K. Allgemeine Physiologie des Zentralnervensystems: die drei Grundformen der Betätigung des Zentralnervensystems. (General physiology of the central nervous system: the three fundamental forms of activity of the central nervous system.) *Fortsch. Neurol. Psychiat.*, 1935, 7, 57-71.—This is a continuation of some previously published work. The first division of the discussion deals with the possibility of classification of activities of the central nervous system, and includes discussions of the division of the various characteristics into dichotomies, viz., voluntary-involuntary, and the obvious difficulty with single characteristics which will not fit into such a schema. There is also a consideration of classification from the standpoint of morphology. This method has been particularly fruitful in neurology. The second section, dealing with automatic actions of the nervous system, constitutes the greater part of the article. This includes a report on the work of Winterstein, and of Graham Brown on the activity of the central nervous system of the fetal cat. Many other studies of breathing and other automatic functions are discussed briefly. There is a bibliography.—*D. S. Oberlin* (Newark, Del.)

2669. Woronzow, D. S. Der Einfluss der Ermüdung auf die absolute Refraktärphase der Nerven. (The influence of fatigue upon the absolute refractory phase of the nerve.) *Pflüg. Arch. ges. Physiol.*, 1934, 235, 96-102.—The duration of the absolute refractory phase of the nerve is relatively little prolonged by its long, continuous tetanization, at the most about three times after a continuous tetanization lasting for several (2-4) hours. The prolongation is considered the result of a slowing down of the restorative processes, i.e., a prolongation of the second phase of the nervous process rather than the first.—*W. Reitz* (Chicago).

[See also abstracts 2583, 2621, 2790, 2890.]

## MOTOR PHENOMENA AND ACTION

2670. Aducco, V. *Il carattere individuale della curva ergografica in rapporto coll'età.* (The individual character of the ergographic curve in relation to age.) *Mem. Soc. tosc. Sci. nat.*, 1930, 40, 171-178.—(*Biol. Abstr.* IX: 2965).

2671. Baker, L. M. A study of the relationship between changes in breathing and pulse rate, and the amount learned following supposed emotional and supposed non-emotional stimuli. *J. gen. Psychol.*, 1934, 11, 348-368.—Evidence was found, in the experiment described in the above title, that pulse and breathing rates were increased over the normal while the S was attempting to learn. There was generally an increase in amount learned when an artificial change in pulse occurred as a result of stimulation.—*H. Cason* (Wisconsin).

2672. Blum, E. *Die Chronaxie trainierter Muskeln vor und nach Arbeitsleistung.* (The chronaxy of trained muscle before and after performance of work.) *Schweiz. Arch. Neurol. Psychiat.*, 1933, 31, No. 1. Pp. 24.—(Not seen).

2673. Ching, J. The physiology of rapid movements. *J. Physiol.*, 1935, 83, 40-42P.—The author concludes that the factor limiting the speed of up and down movements of the human finger is the central nervous system. The relation of the biceps and triceps muscles to this function is discussed.—*M. A. Rubin* (Clark).

2674. Darrow, C. W. Quantitative records of cutaneous secretory reactions. *J. gen. Psychol.*, 1934, 11, 445-448.—A method is described for continuously recording the amount of perspiration from limited skin areas.—*H. Cason* (Wisconsin).

2675. Delcourt-Bernard, E. *Frisson fébrile et température périphérique.* (Febrile shivering and peripheral temperature.) *C. R. Soc. Biol., Paris*, 1933, 112, 724-726.—A fever attack, beginning with violent shivering, is provoked by intravenous injection of anti-gonococcal vaccine. Shortly before the shivering there is a sudden lowering of the peripheral temperature (on the hand, the thigh, and the back). The shivering suddenly breaks forth, the peripheral fall is accentuated, and the basal temperature mounts. Toward the end of the shivering spell, the peripheral temperatures rise. The chilling is accompanied by a vaso-constriction, with rise in pressure, heightened pallor, horripilation. It is reasonable to think that it is the chilling which starts the shivering; however, when peripheral warmth is assured with wool coverings, heating pads, and a sub-clothing temperature of 39-40°, the shivering, always attenuated, begins afresh, with horripilation, trembling, chattering of the teeth. There are, then, disturbances of central origin in the genesis of shivering.—(*Courtesy Année psychol.*)

2676. Font i Puig, P. *Les secrecions internes i la psiquis.* (The internal secretions and the psyche.) *Rev. Psicol. Pedag.*, 1934, 2, 336-337.—A report of conferences held at the Psychotechnical Institute of Barcelona by the professor of psychology at the University. In addition to physiological considera-

tions the author takes up the pedagogical and penological applications, and by developing the concept of a "system within a system" he relates the subject to the philosophical theories of Ramon Lull and Leibnitz.—*M. E. Morse* (Baltimore).

2677. Gerard, R. W., & Hartline, H. K. Respiration due to natural nerve impulses. A method for measuring respiration. *J. cell. comp. Physiol.*, 1934, 4, 141-160.—(*Biol. Abstr.* IX: 2954).

2678. Groebbels, F., & Never, H. E. *Die Methoden zur Untersuchung der Funktionen des Vogellabyrinthes.* (Methods of investigating the function of the labyrinth in birds.) *Handb. biol. ArbMeth.*, 1932, Abt. V, Tl. 7. Pp. 42.—(Not seen).

2679. Gullotta, S. *Nuove conoscenze sui fenomeni di prensione e sul negativismo motorio.* (New findings on the phenomena of prehension and motor negativism.) *Riv. sper. Freniat.*, 1933, 57, 770-779.—The author reviews studies since Kleist on the phenomenon of forced prehension and the motor negativism which accompanies it. Forced prehension is not a simple reflex; its adaptation varies with the nature of the stimulus which provokes it. Motor negativism is more than a simple tonic innervation; its intensity increases with muscular distension. This double phenomenon can result from subcortico-ganglionic lesions or from bilateral excision of the premotor cortical area, which excision may or may not be associated with the excision of the motor area. A causative factor is an inhibitory mechanism of which the upper level is the premotor area of the cortex.—(*Courtesy Année psychol.*)

2680. Husband, R. W. The effects of musical rhythms and pure rhythms on bodily sway. *J. gen. Psychol.*, 1934, 11, 328-336.—The S's were stimulated with music, and bodily sway was measured with the Miles ataxiometer. All types of music produced more sway than when the S's stood in silence. Pure rhythmical stimuli produced an increase in sway over the normal, and jazz music caused the greatest amount of sway.—*H. Cason* (Wisconsin).

2681. Kabakov, I. B., & Ryvkin, I. A. *Issledovanie elektrokardiogrammy u bliznetsov. Soobshchenie II. Rol nasledstvennosti i sredy v izmenchivosti elektrokardiogrammy.* (An investigation of the electrocardiogram in twins. Second communication. The part of heredity and environment in the variability of the electrocardiogram.) *Trud. med.-biol. nauchno-issled. Inst. Gorkogo*, 1934, 3, 73-79.—81 pairs of identical and 69 pairs of fraternal twins were investigated. The greatest number of pairs are aged from 6 to 16 years; only 21 pairs are older than 16. The authors point out that the variability of the electrocardiogram depends largely on genotypical factors. Therefore in the diagnosis of identity of twins the electrocardiographic methods are of interest.—*B. Vishnevski* (Leningrad).

2682. Kraskin, L. H. A study of factors entering into the determination of handedness. Parts I, II. *Amer. J. Optom.*, 1935, 12, 62-73.—A discussion of the results of an exploratory investigation, together with

a brief historical sketch of work done on the problem.—R. J. Beitel, Jr. (Clark).

2683. Kun, H. *Psychische Feminisierung und Hermaphrodisierung von Männchen durch weibliches Sexualhormon.* (Mental feminization and bisexualization of male animals by the female sex hormone.) *Endokrinologie*, 1934, 13, 311-323.—(Courtesy Bibliogr. eugen.)

2684. Lepley, W. M. Serial reactions considered as conditioned reactions. *Psychol. Monogr.*, 1934, 46, No. 205. Pp. 56.—In a study of remote serial associations using nonsense syllables and the anticipation method, remote associations appeared to be a function of the degree of original learning, the length of the forgetting interval, and the age and practice of the S's. The theoretical discussion of the experiment is related to the author's *Theory of Serial Learning and Forgetting Based upon Conditioned Reflex Principles*, *Psychol. Rev.*, 1932, 39, 279-278.—H. Cason (Wisconsin).

2685. MacLagan, N. F. Gastric secretion and physique. *J. Physiol.*, 1935, 83, 39-40P.—No correlation was found between gastric secretion and anatomical measurements (weight/height, chest circumference/chest length, trunk length, and height).—M. A. Rubin (Clark).

2686. Manzer, C. W. The effect of knowledge of output on muscular work. *J. exp. Psychol.*, 1935, 3, 80-90.—68 men and 60 women college students made 50 maximal muscular contractions each at 15-second intervals on a hand dynamometer. After each contraction from the 11th to the 30th, the subjects in the experimental groups were told the amount of work they had performed. Main conclusions are: (1) Knowledge of output is followed by a prompt upward turn in the curve of muscular work. The means of the experimental groups rise rapidly and then gradually decline. (2) When knowledge of output is suddenly discontinued, there is no abrupt fall in the curve. The incentive developed by knowledge of results appears to have an after-effect, which holds the means of the experimental groups above those of the control groups throughout the rest of the work series. This after-effect is more persistent among the men subjects. (3) Telling the subject he is going to receive knowledge of his output, before the knowledge of his score begins, results in an upward turn in the curve. This anticipatory effect is more pronounced among the women subjects. (4) Incidental evidence suggests that the effect of different incentives on muscular work may be cumulative.—H. W. Karn (Clark).

2687. Max, L. W. An experimental study of the motor theory of consciousness. I. Critique of earlier studies. *J. gen. Psychol.*, 1934, 11, 112-125.—The author summarizes the motor theory of consciousness as previously expounded by Watson, Washburn, Dunlap, and others; and discusses the advantages of the electrical method of registration in the study of implicit thinking movements.—H. Cason (Wisconsin).

2688. McDowall, R. J. S. A flexor rigidity preparation. *J. Physiol.*, 1935, 83, 36P.—If the carotid arteries are tied off, the animal decerebrated and allowed to become rigid, and then the vertebral arteries are clamped, the extensor rigidity is converted into a flexor rigidity within 15 to 20 minutes.—M. A. Rubin (Clark).

2689. Mirenova, A. N. *Psikhomotornoe obuchenie doshkolnika i obshchee razvitie. Mekotorye eksperimenty'na bliznetsakh.* (Psychomotor education and the general development of preschool children. Experiments with twin controls.) *Trud. med.-biol. nauchno-issled. Inst. Gorkogo*, 1934, 13, 86-103.—The purpose of this investigation was to study the following problems: (1) the degrees to which different psychomotor activity is conditioned genotypically and paratypically; (2) the degrees and the nature of the influence of training upon the development of psychomotor functions of different complexities; (3) the effect of training of psychomotor activity upon the general development of the preschool child. The psychological examinations were conducted according to the technique of Binet and Terman, and the psychomotor functions were tested according to Ozeretski's scale. The observations show that marked alterations took place in the whole behavior and in the general development of the trained twins. They became more active, independent, and disciplined. The intellectual level of the trained twins also rose in comparison with the controls. Some of the characters appeared to develop under the direct influence of training, while others probably developed through the organization of the processes of training.—B. Vishnevski (Leningrad).

2690. Newhall, S. M., & Halverson, H. M. Eye-movements correlated with innervation of the orbicularis oculi. *J. gen. Psychol.*, 1934, 11, 287-300.—This investigation was concerned with the direction and amount of eyeball roll when a reflexive innervation occurred during normal fixation, and with the direction and degree of eyeball roll when a voluntary wink occurred during normal fixation. Voluntary winks were much more variable than reflex winks, and in each case an upward displacement of the eyeball occurred and perhaps also a temple-ward displacement.—H. Cason (Wisconsin).

2691. Nystrom, C. L. Are the response latencies of the Achilles and patellar reflex responses as recorded by the action current and muscle thickening techniques comparable? *Proc. Ia Acad. Sci.*, 1933, 40, 171-174.—An essentially constant relationship exists between the latent time of both the Achilles and patellar tendon reflex responses of adult males as measured by the action currents from the executant muscles and the thickening of the muscle itself. This relationship holds true for a long series of consecutive measures. Peripheral fatigue of the gastrocnemius muscle has no effect on the reflex latencies.—B. Wellman (Iowa).

2692. O'Sullivan, F. *Miners' nystagmus: its symptoms, aetiology, and treatment.* Bristol: John Wright & Sons, 1933. Pp. 97. 5s.—(Not seen).

2693. Ruch, F. L. The differentiative effects of age upon human learning. *J. gen. Psychol.*, 1934, 11, 261-286.—A study was made of the learning scores of three different ages, 12-17, 34-59, and 60-82, in two motor tasks and three types of definitely verbal material. The scores of the oldest group were definitely inferior to those of the youngest group and slightly inferior to those of the middle group. The scores of the middle group were superior to those of the youngest group in some tests and inferior in other tests.—H. Cason (Wisconsin).

2694. Seward, J. P., & Seward, G. H. The relation of galvanic skin reactions to preceding resistance. *J. exp. Psychol.*, 1935, 18, 64-79.—The present paper presents an analysis of galvanometric data secured in a previously reported investigation. The authors conclude that the present findings are significant for methodology in that they point to a relation between galvanic reactions and resistance level apparently dependent on the continuous change which that level was undergoing during the experimental period. They show that to stimulate the subject before his resistance has reached a steady level introduces a further complication into an already complicated reaction.—H. W. Karn (Clark).

2695. Shipley, W. C. Studies of inhibitions in conditioned responses. *J. gen. Psychol.*, 1934, 11, 46-64.—A study was made with human S's of conditioned eyelid reactions evoked by a blow on the cheek and recorded on smoked paper by means of a needle attached to the S's eyelid with adhesive cement. Studies of conditioned inhibition and secondary extinction seemed to corroborate the findings of Pavlov and to indicate an interrelation between conditioned responses.—H. Cason (Wisconsin).

2696. Steckle, L. C., & Renshaw, S. An investigation of the conditioned iridic reflex. *J. gen. Psychol.*, 1934, 11, 3-23.—The purpose of the present study was to determine whether the pupillary reflex may become a voluntary response through conditioning. The apparatus employed was approximately the same as that previously used by Hudgins (*J. gen. Psychol.*, 1933, 8, 3-51). A buzzer, hand contractions and relaxations, and verbal commands were used as conditioning stimuli with 8 S's. Hudgins' procedure was also used with one or two minor changes. Conditioning did not evidence itself clearly, the conditioned pupillary reaction was not regular, and adaptation was present in every case. Only slight evidence was obtained for the voluntary control of the conditioned pupillary reaction. The authors discuss the organic connections of the conditioned pupillary reaction and oppose the use of the term "reflex" in this connection.—H. Cason (Wisconsin).

2697. Walker, R. Y., & Adams, R. D. Motor skills: the validity of serial motor tests for predicting typewriting proficiency. *J. gen. Psychol.*, 1934, 11, 173-186.—An experimental evaluation of the motor tests in the Stanford Motor Skills Unit as bases for selecting students most likely to succeed in learning to type. No significant relationship was found between S's

score in the battery of motor tests and proficiency in typewriting.—H. Cason (Wisconsin).

2698. Youngerman, W. M. Kommt Spontan-nystagmus bei Gesunden vor? (Does spontaneous nystagmus occur in healthy persons?) *Arch. Ohr., Nas., u. KehlkHeilk.*, 1933, 136, 314-317.—(*Biol. Abstr.* IX: 2944).

2699. Zolliker, A. Die Kräpelin'sche Arbeitskurve und ihre diagnostische Verwertbarkeit. (The Kraepelin work curve and its diagnostic evaluation.) *Schweiz. Arch. Neurol. Psychiat.*, 1934, 33, No. 2; 34, No. 1. Pp. 34.—(Not seen).

[See also abstracts 2566, 2641, 2642, 2656, 2662, 2669, 2707, 2715, 2721, 2722, 2735, 2749, 2765, 2821, 2898, 2943, 3026, 3027.]

#### PLANT AND ANIMAL BEHAVIOR

2700. Abbott, C. E. Further observations on the olfactory powers of the Necrophori. *Ann. ent. Soc. Amer.*, 1927, 20, 550-53.—(*Biol. Abstr.* IX: 2911).

2701. Adler, P. Die Beeinflussung der Galvanotaxis und Galvanonarkose bei Fischen durch Narcotica und Caffein. (The effect of narcotics and caffeine on galvanotropism and galvanonarcosis in fish.) *Pflüg. Arch. ges. Physiol.*, 1932, 230, 113-128.—Certain narcotics in non-narcotizing doses (chloretone, alcohol, magnesium chloride and ethyl methane) lower, and caffeine raises the threshold of galvanic narcosis and galvanotaxis in several kinds of fish; this occurs without modifying the threshold of the first reaction produced by the current. The first reaction is due to a direct influence of the current upon the nerves and muscles. The narcotics and the current combined have a thickening effect upon the cell walls.—(Courtesy *Année psychol.*)

2702. Anderson, K. T. Experimentelle Untersuchungen über den Einfluss der Temperatur auf der Eierzeugung von Insekten. (Experimental investigations concerning the influence of temperature on egg production of insects.) *Biol. Zbl.*, 1934, 54, 478-486.—Production of eggs by *Sitona lineata* L. increases with temperature from 16° C. to a maximum at 24.5°. The S-form curve showing the relationship of egg production to temperature is given mathematical statement.—E. R. Hilgard (Stanford).

2703. Bierens de Haan, J. A. Der Stieglitz als Schöpfer. (Creative ability in the goldfinch.) *J. Orn., Lpz.*, 1933, 81, 1-22.—The author studied the traction capacity in three goldfinches and some individuals of related species. On one side of a cage hung a thread to which was suspended from the outside a tiny vessel of water. On the other side, on an exterior plane inclined at 45°, was a tiny wagon on casters which contained food and which could be drawn in by a thread, after the bird had put his head through a ring. Two of the goldfinches succeeded in drawing the wagon in almost at once. The other birds failed almost completely.—(Courtesy *Année psychol.*)

2704. Casanova, M. Sulle asimmetrie di posizione dei padiglioni auricolari del coniglio determinate da eccitazione rotatoria del labirinto. (Asymmetry of

position in the external ear of the rabbit with rotary stimulation of the labyrinth.) *Arch. Fisiol.*, 1933, 32, 421-436.—The author studies the phenomenon described by Simonelli in 1924. By rotation around a vertical axis passing through the middle of the interauricular line, there is an elevation of the left external ear when the rotation is clockwise, and of the right external ear when it is counter-clockwise. This unilateral elevation lasts as long as 50 minutes. Regular repetition of the stimuli does not cause summation. The reaction is increased by ablation of the brain just in front of the sulcus chiasmatus, but is abolished by mesencephalic lesions.—(Courtesy *Année psychol.*)

2705. Cousin, G. *Etude biologique d'un chalcidien Mormoniella vitripennis* Walk. (Biological study of a chalcid, *Mormoniella vitripennis* Walk.) *Bull. Biol.*, 1933, 57, 371-406.—A study of the role of antennae in behavior. After a partial or total section of one or two antennae, the males of this species of Hymenoptera behave in a normal fashion, mating with the females and fertilizing them. When the females are deprived of their two antennae or even the two antennary funiculi, they appear to behave normally, but fertilization is unsuccessful. The step lacking in the female mating mechanism is the raising of the abdomen, a reaction which requires a stimulus from the path of funicular receptors.—(Courtesy *Année psychol.*)

2706. Eltringham, H. *The senses of insects*. London: Methuen, 1933. Pp. 126. 3/6.—(Not seen).

2707. Fearing, F., & Mowrer, O. H. *The effect of general anesthesia upon the experimental reduction of vestibular nystagmus*. *J. gen. Psychol.*, 1934, 11, 133-144.—40 adult common pigeons were used to determine whether or not nystagmus reduction would occur when the S's were deeply anesthetized just prior to each session of repeated bodily rotation. Different procedures were used with four different groups of animals. The reduction of post-rotational nystagmus after repeated rotation is dependent upon a functional change in the central nervous system and is not due to injury or structural disarrangement of the vestibular receptors. The repeated presentation of the type of stimulation produced by more or less prolonged bodily rotation may modify either the excitation threshold or the refractory phase of the neurons composing this after-discharge mechanism in such a way as to result in the progressive reduction of nystagmus.—H. Cason (Wisconsin).

2708. Fraenkel, G. *Die Wanderungen der Insekten*. (The migrations of insects.) *Ergebn. Biol.*, 1932, 9, 1-238.—Complete inventory of the known facts on the migrations of insects, especially the larvae and adults of the Orthoptera, Odonata, Lepidoptera, Diptera, Coleoptera, Hymenoptera, and Hemiptera (also mixed migrations in these groups). It cannot be said that the active migrations have seasonal rhythm, as with birds, since returns have rarely been noted. Migrations due to lack of food in a given place and recurrent migrations are exceptional. Factors which determine the "instinct of migration"

are temperature, humidity, pressure, wind and tempest.—(Courtesy *Année psychol.*)

2709. Frisch, K. v. *Die Erforschung des Gehörsinnes bei Fischen*. (Investigation on the auditory sense in fish.) *Wien. klin. Wschr.*, 1933, 46, 609-613.—Review of studies on the hearing of fish, chiefly the minnow and the silurids. Anatomical illustrations of the labyrinth are included.—(Courtesy *Année psychol.*)

2710. Fuller, H. J. *Plant behavior*. *J. gen. Psychol.*, 1934, 11, 379-394.—Psychology has neglected the study of plant responses, but plants exhibit many responses analogous to those of animals, and the author summarizes significant work on plant behavior.—H. Cason (Wisconsin).

2711. Gersch, M. *Zur experimentellen Veränderung der Richtung der Wellenbewegung auf der Kriechsohle von Schnecken und zur Rückwärtsbewegung von Schnecken*. (On experimental alteration of the direction of the undulatory motion of the crawling plate of snails and the backward movement of snails.) *Biol. Zbl.*, 1934, 54, 511-518.—Movements were observed as the snails crawled along glass plates and circumvented obstacles. Backward motions were observed in the snails *Helicon pellucidum* and *Gibbula cinerarius*.—E. R. Hilgard (Stanford).

2712. Goetsch, W. *Entwicklungspsychologische Untersuchungen an Fischlarven*. (Studies in the developmental psychology of fish larvae.) *Forsch. Fortschr. dtsch. Wiss.*, 1934, 10, 299-300.—The writer's studies were made in fish hatcheries. He observed that twin larvae of the salmonids constantly manifested a struggle against each other, from the time when the first animal opened its eyes until the two separated. In this respect, fish fall between the lower animals (such as the hydra) and the higher animals (such as reptiles).—J. Deussen (Markkleeberg).

2713. Hertz, M. *Zum Verhalten der Bienen gegenüber Blüten mit verborgener Nektarquelle*. (Concerning the behavior of bees on flowers with inaccessible sources of nectar.) *Biol. Zbl.*, 1934, 54, 508-511.—Experiments were performed to determine the sensory cues used by bees in securing inaccessible food. Tactile-kinesthetic processes are significant. The dampness of the flowers is also a factor.—E. R. Hilgard (Stanford).

2714. Hoff, H. v. *Meine Erlebnisse mit den 4 sprechenden Weimarer Hunden (Teckel, Foxterrier, Dogge und Pinscher)*. (My experiences with the four speaking dogs of Weimar—dachshund, fox terrier, mastiff and black-and-tan.) *Mitt. Ges. Tierpsychol. Berl.*, 1934, Ser. 4, No. 2. Pp. 16.—(Not seen).

2715. Hunter, W. S. *The disinhibition of experimental extinction in the white rat*. *Science*, 1935, 81, 77-78.—Two experiments on disinhibition of overt bodily activity of the locomotor type in the white rat are reported. In the first experiment 4 normal untrained white rats, 3 months of age, were conditioned to a light; in the second, 3 normal untrained white rats were conditioned to the sound of a buzzer. In

both experiments the response was a run of at least body length in either direction along a narrow path, the floor of which was a grill through which the induction shock could be sent. The criterion of conditioning in both experiments was ten responses in succession. After conditioning was established and then extinguished, the disinhibiting stimulus was used. Disinhibition was assumed if the animal responded to the initial conditioning stimulus after the disinhibiting stimulus had been presented. In the first experiment the disinhibiting stimulus was the sound of a buzzer; in the second a light. The experiments were completed in one session, and then repeated 24 and 72 hours later for the first, and 3, 9, and 10 days later for the second. Positive results were secured in the first experiment for all animals. In the second, 6 out of 9 cases showed disinhibition, the other three giving no evidence of it.—P. Seckler (Charity Organization Society, Hartford, Conn.)

2716. Kramer, G. Untersuchungen über die Sinnesleistungen und das Orientierungsverhalten von *Xenopus laevis* Daud. (Investigations on the sensory capacity and orientational behavior of *Xenopus laevis* Daud.) *Zool. Jb.*, 1933, 52, 629-676.—(Not seen).

2717. Larsell, O., & McCrady, E. Acoustic function in pouch young of the opossum. *Proc. Soc. exp. Biol.*, N. Y., 1935, 32, 774-776.—A control litter of free young were observed to respond with startle movements to all acoustic stimuli used (whistling, handclaps, rustling of straw) except a C<sub>3</sub> fork of low intensity. In the experimental group of pouch young no responses to acoustic stimuli were observed before 50 days of age (estimated). At this time contraction of trunk musculature was caused by whistling. Responses to high tones of an organ appeared before those to low tones. These facts are correlated with histological studies of the cochlea indicating that differentiation starts at the base and proceeds to the apex. At 41 days of age the vestibular reflexes are present.—H. Peak (Randolph-Macon).

2718. Minkiewicz, R. Rôle des facteurs optiques dans les changements de livrée chez les grenouilles adultes. (The role of optic factors in the change of color in adult frogs.) *Acta Biol. exp.*, Varsovie, 1933, 8, 102-177.—The cutaneous pigmentary reactions of the frog are nycthemeral, photodermal, or visual. The length of the nycthemeral phase depends upon the strength and duration of the inducing phases, but does not exceed twenty days. The dermatoptic reaction is manifested in blind frogs in a lessened degree; it depends upon the amount of light and not upon the nature of the radiations. The generalized optic reaction, which is conditioned by visual reception, does not depend upon incident light, but upon the reflection from the surroundings, and is influenced especially by coloration; white and yellow screens produce a strong retraction of pigment, black and violet the maximal expansion. The latency time of the optic reaction is variable and may last several months.—(Courtesy *Année psychol.*)

2719. Molitor, A. Neue Beobachtungen und Versuche mit Grabwespen. VI. (New observations and

experiments with sand-wasps. VI.) *Biol. Zbl.*, 1934, 54, 450-566.—Further observations on *Ammophila heydeni* and *Sphex maxillosus* relative to prey, nest building, and provision for young.—E. R. Hilgard (Stanford).

2720. Monguio, M. Ueber die poläre Wirkung des galvanischen Stromes auf Leukocyten. (The polar action of the galvanic current on leucocytes.) *Z. Biol.*, 1933, 93, 553-559.—A report on galvanic stimulation, with micro-electrodes, of the leucocytes of the dorsal lymphatic sac of the frog. With weak currents there is a momentary retraction of pseudopods; with sufficient intensity there is a polarized migration toward the cathode, and with very strong currents toward the anode.—(Courtesy *Année psychol.*)

2721. Riddle, O., Lahr, E. L., & Bates, R. W. Maternal behavior induced in rats by prolactin. *Proc. Soc. exp. Biol.*, N. Y., 1935, 32, 730-734.—Maternal behavior was induced in 6 or 10 virgin rats (67-81 days) by injecting prolactin, a hormone of the anterior pituitary, after 5 days of stimulation of the ovaries by prolactin or follicle-stimulating hormone. 6 of 7 control rats showed no maternal behavior until 1-8 days of treatment with prolactin.—H. Peak (Randolph-Macon).

2722. Samaan, A. Muscular work in dogs submitted to different conditions of cardiac and splanchnic innervations. *J. Physiol.*, 1935, 83, 313-332.—To test the various theories advanced to explain the cause of the acceleration of the heart during muscular work, the effect of a "standard" exertion upon the heart rate was studied before and after the elimination of a part, or the whole, of the cardiac nerves. The influences of hormones and metabolism were also taken into consideration. The results are compared with those required to fit the different theories.—M. A. Rubin (Clark).

2723. Sarris, E. G. Kann der Hund auf menschliche Worte reagieren? (Can the dog react to human words?) *Forsch. Fortschr. dtsch. Wiss.*, 1934, 10, 265-266.—Experiments lead the writer to the conclusion that "the dog has the capacity of being impressed by organized parts of a group of sounds and of reacting to a potential schema with a particular meaning-content."—J. Deussen (Markkleeberg).

2724. Scheminzky, F. Ueber die Natur der "Wechselstromnarkose" bei Fischen. (The nature of narcosis by alternating current in fish.) *Pflüg. Arch. ges. Physiol.*, 1933, 233, 371-379.—Galvanic narcosis is a muscular paralysis to which caffeine acts as antagonist. In contrast, narcosis by alternating current in fish is an immobilizing muscular contraction, and is favored by the action of caffeine.—(Courtesy *Année psychol.*)

2725. Verlaine, L. L'instinct n'est rien. (Instinct is nothing.) *Rech. phil.*, 1933, 2, 48-61.—The author believes he has established, in studies of the reactions of butterfly antennae to raised temperatures and shocks and of the autotomy of the phasmids, that reflexes are only habits, automatisms individually acquired by the play of associative memory. Instincts are not innate; in the past generalizations have been

drawn from a few examples which, by chance, were favorable. The term *instinct* should not, however, be abandoned.—(Courtesy *Année psychol.*)

2726. Verrier, M. L. *Étude des yeux d'un Blenniide: Pholis gunellus. Présence d'une fovea.* (Eye study of a blenniid, *Pholis gunellus*. Presence of a fovea.) *Bull. Soc. zool. Fr.*, 1933, 58, 62-68.—In the small, laterally placed eyes of *Pholis* there are 4 times more cones than rods, and double types are frequent. The fovea has only cones, which are simple and filiform at the center, and about half as many ganglion cells. In spite of the presence of a fovea, the dioptric mechanism, with its spherical and indeformable lens, suggests a hypermetropia of several diopters, which would only permit confused images. Since *Pholis* lives in the sand or on stones, it lives in diffused light. Either the retina is not adapted to the mode of life or else cones are not the only organs of vision in lighted surroundings.—(Courtesy *Année psychol.*)

2727. Vilter, V. *La nature sympathique du contrôle neurohumoral de la pigmentation mélanique chez l'axolotl.* (The sympathetic nature of neurohumoral control of melanic pigmentation in the axolotl.) *C. R. Soc. Biol., Paris*, 1933, 112, 1207-1209.—The injection of adrenalin in the axolotl induces a slow contraction of the melanophores. The pigment cells are not directly sensitive to adrenalin, for when a piece of skin is put into Ringer's adrenalin there is more spreading than contraction. The melanophores of grafted skin also contract under the influence of adrenalin, but more slowly. Ephedrin acts like adrenalin, but ergotinine causes a maximal spreading.—(Courtesy *Année psychol.*)

2728. Walls, G. L. *The visual cells of lampreys.* *Brit. J. Ophthalmol.*, 1935, 19, 129-148.—In the lampreys the visual cells are not "undifferentiated" cells. The lamprey retina cannot possibly be considered either pure-rod or pure-cone; both rods (short cells) and cones (long cells) are present. "The presence of both rods and cones in these, the most primitive vertebrates, makes it impossible to rely, as Schultze did, upon comparative adult histology to solve the problem of the order in which the rod and cone originally evolved."—R. J. Beitel, Jr. (Clark).

2729. Young, C. D. *Un film de psychologie expérimentale sur les singes.* (A film showing psychological experiments on monkeys.) *Rev. int. Cinéma éduc.*, 1933, 9, 671.—A film recording experiments made upon two rhesus monkeys shows that the monkeys resolve each problem as soon as they have grasped the situation in its entirety.—(Courtesy *Année psychol.*)

[See also abstracts 2560, 2583, 2653, 2656.]

## EVOLUTION AND HEREDITY

2730. Behr-Pinnow, — v. *Vererbung bei Jacob Burckhardt.* (Jacob Burckhardt's heredity.) *Arch. Klaus-Stift. VererbForsch.*, 1934, 9, 1 ff.—A contribution to the problem of schizothymic-cyclothymic personality in its relation to race. Burckhardt's genius for research is a cyclothymic characteristic (Dinaric

bodily build), while his mental characteristics are almost purely Nordic-schizothymic. A detailed family tree, reaching back to the sixteenth century, is added.—P. Krieger (Leipzig).

2731. Bostroem, A. *Erbbiologie und Psychiatrie.* (The biology of heredity and psychiatry.) *Forsch. Fortsch. dtsch. Wiss.*, 1934, 10, 351-352.—There should be investigations concerning which mental characteristics and mental disorders are "characters" in the sense of genetics. In discussing the question, the writer considers hereditary process, hereditary prognosis, variation in manifestation, intermediary hereditary transmission, heterozygotic research, and problems of multiple allelia. He reaches the conclusion that hereditary influence is highest in schizophrenia (75%) and lowest in exogenous psychoses (approaching zero). Even in the latter cases, however, some reference to inherited constitution may be necessary, e.g., in delirium in pneumonia or paralysis in luetic disorders.—J. Deussen (Markkleeberg).

2732. Curtius, F. *Erbbiologie und Nervenkrankheiten.* (Genetics and nervous diseases.) *Forsch. Fortsch. dtsch. Wiss.*, 1934, 10, 410-411.—A review of investigations from those of Möbius to those of Kretschmer and a demonstration of the intimate interconnection between genetics and nervous disorders.—J. Deussen (Markkleeberg).

2733. Frey, A. R. *Die Unterschiede der Fortpflanzung in den verschiedenen Berufen und Konfessionen während der Jahre 1926-1929.* (Differences in reproduction in the various callings and creeds during the period from 1926 to 1929.) *Arch. Rass.-u. GesBiol.*, 1934, 28, 113-128.—(Courtesy *Bibliogr. eugen.*)

2734. Ignatiev, M. V. *Opredelenie genotipicheskoi i paratipicheskoi obuslovlennosti kolichestvennykh priznakov pri pomoshchi bliznetsovogo metoda.* (The measurement of genotypical and paratypical influences on quantitative characters by means of the twin method.) *Trud. med.-biol. nauchno-issled. Inst. Gorkogo*, 1934, 13, 18-32.—The formulae of the distribution of differences (Z) between twins has been

derived as:  $y = \frac{1}{\sigma \sqrt{(1-r)}} e^{-\frac{z^2}{4(1-r)\sigma^2}} \dots (\sigma^2)$

The author points out that F. Lenz-O. v. Verschuer's and K. Holzinger's indices, which are intended for the measuring of the influence of the endogenous and exogenous factors, do not take into account the intrafamilial paratypical correlation as well as the variability of the characters within the population.—B. Vishnevski (Leningrad).

2735. Kabakov, I. B., Ryvkin, I. A., & Gurevich, I. B. *Issledovanie elektrokardiogramy u bliznetkov. Soobshchenie III. Ob izmenchivosti zubtsa T.* (An investigation of the electrocardiogram in twins. Communication III. On the variability of the peak T.) *Trud. med.-biol. nauchno-issled. Inst. Gorkogo*, 1934, 3, 80-85.—84 pairs of identical twins aged 4 to 50 years were examined; 44 of them were male and 45 were female pairs. No connection could be estab-

lished between the height of the peak T and the circumference of the thorax. Concerning the correlation between the height of the peak T and the dimensions of the heart, greater height of the peak T was associated in most of the cases with greater heart dimensions.—*B. Vishnevski* (Leningrad).

2736. *Katznelson, A.* [The question of heredity in total color blindness.] *Sovetsk. Vestn. Ophthal.*, 1933, 3, 354 ff.—(Courtesy *Bibliogr. eugen.*)

2737. *Köhn, W.* Vererbung und Umwelt nach Newmans und Mullers eineligen Zwillingen verschiedener Umwelt. (Heredity and environment in relation to Newman's and Muller's identical twins reared apart.) *Arch. Rass.-u. Ges Biol.*, 1934, 28, 49-55.—Conclusions concerning inheritance of intelligence and character.—(Courtesy *Bibliogr. eugen.*)

2738. *Levit, S. G.* Nekotorye itovi i perspektivy bliznetsovykh issledovaniy. (Some results and prospects of twin investigations.) *Trud. med.-biol. nauchno-issled. Inst. Gorkogo*, 1934, 3, 5-17.—In Moscow there are 750 pairs of twins under permanent observation by the Medico-Biological Institute. They are studied from biological, pathological and psychological points of view. The author points out a lack of age differences in the study of the correlative part of the heredity and environment, and also of the factors which have the greatest significance for the investigated phenomenon. Further, he points out the danger of selection based on the twin method, the correlation of the features and functions, and also the problem of the external effect.—*P. Vishnevski* (Leningrad).

2739. *Masuhr, F.* Ueber Schizophrenie bei Geschwistern. (Schizophrenia in siblings.) *Charlottenburg: Hoffmann*, 1932. Pp. 36.—*R. R. Willoughby* (Clark).

2740. *Pfahler, G.* Rassenkunde und Lehre vom Erbcharakter. (Race theory and the theory of hereditary characters.) *Forsch. Fortsch. dtsh. Wiss.*, 1934, 10, 308-309.—After a discussion of the doctrines of E. Fischer, K. F. Gunther, etc., the writer declares that a decision concerning the relationship between race-mind and hereditary characters would be premature at the present time.—*J. Deussen* (Markkleeberg).

2741. *Richmond, F. C.* Sterilization in Wisconsin. *J. crim. Law Criminol.*, 1934, 25, 586-593.—Between the years 1913 and 1933, inclusive, 499 individuals were sterilized by the state of Wisconsin (salpingectomy and vasectomy). Most of these were mentally defective females. A smaller number were insane and epileptic. No criminals were sterilized as such. Consent of parents or nearest relatives was obtained. "Sterilized persons should be permitted to marry."—*L. Ackerson* (Institute for Juvenile Research).

2742. *Rossmann, M.* Bibliography of legal articles on sterilization. *J. Hered.*, 1935, 26, 88-90.—*B. S. Burks* (Columbia).

2743. *Sanders, B.* The inadequacy of correlation method in genetic research. *J. Amer. statist. Ass.*, 1934, 29, 59-65.—*R. R. Willoughby* (Clark).

2744. *Sanders, J.* La famille Q. (The Q family.) *Genetica*, 1934, 16, 369-381.—This family, traced through 11 generations, showed marked intellectual talent on one hand and phenomena of degeneration on the other hand. An increase in the ratio of females to males was found in later generations.—(Courtesy *Bibliogr. eugen.*)

2745. *Steck, H.* Das Gesetz vom 3 September 1928 über Unfruchtbarmachung geistig Minderwertiger im Kanton Waadt und seine Anwendung. (The law of Sept. 3, 1928 on sterilization of the mentally incompetent in Canton Waadt and its application.) *Allg. Z. Psychiat.*, 1933, 99, 131-145.—(Courtesy *Bibliogr. eugen.*)

[See also abstracts 2576, 2636, 2681, 2689, 2788, 2802, 2810, 2811, 2812, 2828, 2847, 2863, 2897, 2902, 2907, 2914, 2921, 2931.]

#### SPECIAL MENTAL CONDITIONS

2746. *Angel, A.* Einige Bemerkungen über den Optimismus. (Some observations about optimism.) *Int. Z. Psychoanal.*, 1934, 20, 191-199.—Contrary to general belief, optimism does not necessarily denote a healthy mental condition. In some cases it is highly neurotic. Optimism is closely akin to the attitude of believing in and expecting the miraculous. In women it may be traced back to the infantile envy of the male member. When this conflict is not resolved by acceptance of the condition, lesser anxieties become regarded as inconsequential and neurotic optimism results. There is also genuine optimism, in which acceptance is followed by adaptation to reality.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2747. *Angel, A.* From the analysis of a bed wetter. *Psychoanal. Quart.*, 1935, 4, 120-134.—A report is given of the results of an incomplete analysis of a 12-year-old girl suffering from enuresis. The analytic procedure disclosed the traumatic experience giving rise to her difficulty to have occurred when she was 3 years old and to consist of an infantile seduction in which she exposed herself to a man who had then laughed at her and showed her his penis. This experience had convinced her of the defectiveness of her own organ and hence of the impossibility of controlling her urine. As insight developed, the patient made a good recovery from her symptom, but the masturbation and Oedipal components uncovered during the analytic procedure could not be analyzed because of the interruption of treatment.—*M. H. Erickson* (Eloise Hospital).

2748. [Anon.] *Almanach der Psychoanalyse.* (Almanac of psychoanalysis.) Vol. IX. Vienna: Int. Psychoanal. Verl., 1934. Pp. 237. RM. 4.00.—(Not seen).

2749. *Barinbaum, M.* Zum Problem des psychophysischen Zusammenhangs mit besonderer Berücksichtigung der Dermatologie. (On the problem of the psychophysical connection with especial reference to dermatology.) *Int. Z. Psychoanal.*, 1934, 20, 241-251.—It is likely that certain skin diseases are wholly or in part psychogenic. Some contributions to this

view have already appeared in the literature. Evidence is presented showing apparent instances of what have been called "esophylactic" and "exophylactic" protection against the perceptual field. There are cases of eczema and other diseases being produced under circumstances of conflict that are accessible to analysis. Freud has suggested that the causal connection lies in his doctrine of the somatic storing-up of libido. This view seems promising.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2750. Behn-Eschenburg, H. *Beiträge zur Vorgeschichte des Ödipuskomplexes.* (Contribution to the early history of the Oedipus complex.) *Int. Z. Psychoanal.*, 1934, 20, 200-209.—There is evidence showing that material often uncertainly identified with the pre-Oedipal phase in children belongs to the development of true Oedipus complexes. This material cannot often be reached by analysis, but is revealed by direct observation of children. This direct observation also shows the development of the complex at a very early age, a case of its development at 2½ years being recorded.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2751. Bergler, E. *Über einige noch nicht beschriebene Spezialformen der Ejakulationsstörung.* (On certain hitherto undescribed special forms of disturbance of ejaculation.) *Int. Z. Psychoanal.*, 1934, 20, 252-260.—In ejaculatio retardata, as already recognized, there is a combination of anal and sadistic pleasure. A special form may be called "anonymous coitus." In this case coitus is unsuccessful and ejaculation does not occur unless the person succeeds in identifying himself with someone else, i.e., establishing his anonymity. This is accomplished by encouraging appropriate imagery. It should not be confused with physiological blunting. "Psychogenic aspermia" occurs in urethral and oral forms. It is largely caused by castration anxiety originally connected with enuresis. Ejaculation fails to occur at all.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2752. Carp, E. A. D. E. *Die Anwendung der Psychoanalyse als Form von Psychotherapie.* (Psychoanalysis as a form of psychotherapy.) *Zbl. Psychother.*, 1934, 7, 317-329.—Carp's general viewpoint is as follows: Although the foundation of suggestion on which analysis rests has been neglected, a mixture of the two has long existed and is a possible future form of psychotherapy. Uncritical association with continued repetitions puts the patient in a hypnoid state and the so-called free associations are determined in part by the analyst. Furthermore, auto-suggestion is a powerful help in the acceptance and conquest of conflicts. A purely passive technique is practically impossible, is incorrect in principle, and is being abandoned. The therapeutic results of analysis appear to have been very modest. The possibility of making a measurably intact and harmonious personality out of a psychopathic one remains a pious wish, except for the first steps by means of character analysis. The re-educative possibilities of analysis have, however, been insufficiently worked out. The ascendancy of the transference, which

should not be longer than six months, should be followed by a psychagogic phase, according to Kronfeld's method. Finally, the most important thing about analysis is not its weak points but its perspectives.—*M. E. Morse* (Baltimore).

2753. Driesch, H. *Psychical research.* London: G. Bell & Sons, 1933. Pp. 192. 5 s.—(Not seen).

2754. Eidelberg, L. *Zur Erniedrigung des Liebesobjektes.* (On the debasement of the love object.) *Int. Z. Psychoanal.*, 1934, 20, 549-552.—Two analyses in which the patients had to debase the love object to achieve successful coitus. Identifications on the basis of various standards made this necessary before treatment.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2755. Fenichel, O. *Weiteres zur präöedipalen Phase der Mädchen.* (Further consideration of the pre-Oedipal phase in girls.) *Int. Z. Psychoanal.*, 1934, 20, 151-190.—In general, Freud's suppositions concerning the Oedipus complex in girls are substantiated and amplified. In case studies the developments of the pre-Oedipal phase are traced. The fundamental difference, expressed as envy, and making girl children unique, which first leads to a turning away from the mother, must not be lost sight of.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2756. Fenichel, O. *Über Angstabwehr, insbesondere durch Libidinisierung.* (On warding off anxiety, especially by investing it with libido.) *Int. Z. Psychoanal.*, 1934, 20, 476-489.—Anxiety is often anxiety not over an actual danger but over its attendant anxiety. Just as the reaction to danger may be fight or flight, in the case of anxiety it consists of defence and flight. Since the reference is in childhood to something internal that is felt to be objective, the situation becomes invested with libido. The defence occurs as identification, according to Freud's totem principle, and the flight becomes the flight to reality. Because of the libidinous investiture there obtains "anxiety pleasure." There are striking instances of the operation of the device in the sexual life.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2757. Freud, S. *A general introduction to psychoanalysis.* New York: Liveright, 1935. Pp. 412. \$3.75.—From the author's introductory note: "These lectures were brought out for the first time in English in 1920 by Horace Liveright, Inc., with an introductory preface by G. Stanley Hall. No translator was named. Two years later another translation made by Joan Riviere was published in London by G. Allen & Unwin. It is obviously undesirable to have the original German text presented to the English-reading public in more than one version. I therefore feel called upon to express my gratitude to the American publishers for their acceptance of the Riviere translation for their new edition."—*R. R. Willoughby* (Clark).

2758. Fritz, M. F. *A classified bibliography on psychodietetics.* *Psychol. Monogr.*, 1934, 46, No. 206. Pp. 53.—This is a review of 669 references in English on the relationship between diet and psychological phenomena. Many of these observations were inci-

dentally reported in papers mainly concerned with biochemical and dietetic subjects. The principal topics covered in the review are pernicious anemia, pellagra, sprue, acrodynia, migraine, epilepsy, appetite, racial vigor and temperament, endurance, intelligence and learning, mental disorders, intestinal toxemia, sense organs, and allergy.—*H. Cason (Wisconsin).*

2759. Hermann, I. *Die Verwendung des Begriffes "aktiv" in der Definition der Männlichkeit.* (The application of the term "active" under the definition of masculinity.) *Int. Z. Psychoanal.*, 1934, 20, 261-263.—In the doctrines of psychoanalysis masculinity and activity have usually been correlated. This is an erroneous conception. The idea of the woman as passive is due not to natural conditions but to social convention. In fact the woman is "active" as well as the man, or at least has the instinct for "activeness" in sexual intercourse, although she is active in a different direction from the man. To deny the quality to the woman is to contradict the definition of libido.—*H. D. Spoerl (St. Johnsbury, Vt.)*

2760. Hirschmann, E. *Beiträge zu einer Psychopathologie des Traumes.* (Contributions to a psychopathology of the dream.) *Int. Z. Psychoanal.*, 1934, 20, 459-475.—A psychopathology of the dream would consist chiefly of a "statistics of manifest content." Certain schemata, as is well known, appear over and over again in dreams of the same and different people. It is possible, when these are somewhat systematized, to see through them at once in a more or less superficial way, and thereby to identify the dreamer as to his most distinguishing tendency and even as to character type. With respect to practical results this undertaking is not new. But such a psychopathology would enlist the interest of those who, while not analysts, make use of similar procedures.—*H. D. Spoerl (St. Johnsbury, Vt.)*

2761. Huston, P. E., Shakow, D., & Erickson, M. H. *A study of hypnotically induced complexes by means of the Luria technique.* *J. gen. Psychol.*, 1934, 11, 65-97.—An experimental study was made of Luria's method of detecting affective conflicts. A complex was induced hypnotically, and verbal, voluntary, involuntary, and respiratory responses were recorded in the case of four male and eight female S's. Six S's accepted a story told them as something they had actually done, and in 6 of these S's some non-verbal aspect of Luria's method showed the presence of the conflict in either the hypnotic or waking states. S's in the hypnotic states tended to give verbal responses definitely related to the conflict with relatively few non-verbal disturbances. There was some evidence that if excitation created by the conflict was not discharged verbally there was a spread to voluntary and involuntary motor levels. Repeated experimental sessions with the same S while he had the conflict showed a gradual decline in motor disturbances from day to day, pointing to an "abreactive" or forgetting factor.—*H. Cason (Wisconsin).*

2762. Kaiser, H. *Probleme der Technik.* (Problems of technique.) *Int. Z. Psychoanal.*, 1934, 20,

490-522.—The common quality of resistance in a number of refractory patients gave rise to the designation of "resisting characters." The successful technique in such cases consists not of explaining away the resistance but of capitalizing it so as to incite the "bursting through" of the instinct at work. Pre-occupation with content often hinders analysis, whereas insight into the changing structure, so to speak from the point of view of the patient, leads to successful treatment. These principles were in the main pointed out if not elucidated 20 years ago by Freud. Reich has made valuable amplifications, especially through his development of character analysis. Problems of technique discussed include the structure of resistance, transference and character resistance, and the practical methods of analyzing resistance.—*H. D. Spoerl (St. Johnsbury, Vt.)*

2763. Kemper, W. *Zur Genese der genitalen Erogenität und des Orgasmus.* (On the genesis of genital erogeneity and the orgasm.) *Int. Z. Psychoanal.*, 1934, 20, 287-312.—Phylogenetic and embryological facts concerning the differentiation of sex organs tend to support a hypothesis of "cloacal erogeneity." It is not possible to point to a complete set of analogues in male and female organs. Physiological considerations about erogenous zones and orgasm are augmented by cases of men of the feminine type who more or less successfully have experience that belongs properly to the woman. The speculative nature of this investigation is attested by the listing of objections to the hypotheses presented.—*H. D. Spoerl (St. Johnsbury, Vt.)*

2764. Kempf, E. J. *Physiology of attitude—emergence of ego-organization.* *Med. Rec., N. Y.*, 1935, 141, 136-138.—The author discusses the general aspects of the subject of ego-organization and the relationship of the ego to attitudinal reflexes and the various other manual, postural, and material symbols expressive of the self. He elaborates upon William James' conception of the ego as included in the "consciousness of self" in his *Psychology*. The author then offers a behavioral definition of attitude: "Attitude is any postural organization of the simultaneous functionings of the many cellular units constituting the organism, repetitiously stimulated through viscer-, proprio-, and exteroceptors to maintain a counterbalancing conscious unity; experiencing sensation and affective tone, with feeling of adequacy and fitness or inadequacy and unfitness in reaction to the increases and decreases of supporting or destructive environmental forces." He discusses this definition and adds that attitude signifies more than ego-organization and less than personality.—*M. H. Erickson (Eloise Hospital).*

2765. Kempf, E. J. *Physiology of attitude—emergence of ego-organization.* *Med. Rec., N. Y.*, 1935, 141, 254-255.—Second installment. Establishment of attitude results in a continuous stream of affective tone permitting environmental adaptation. Relaxation or sleep permits development of relative states of decoordination, but in such states as attitude organization improves the consciousness becomes

increasingly more correlated with reality situations. The behavioral productions of any attitude reacting to the same environmental situation tend to be characteristic for that attitude. The author then treats of the physiology of attitude, discussing the dual opposed innervation of smooth muscle, which in itself is a completely autonomic contractile unit. The wide distribution of smooth muscle, particularly in the vascular system, renders it important in attitude organization. The segmental distribution of the parasympathetic and sympathetic systems permits increased systemic reactions to noxious stimuli and decreased systemic reactions to pleasurable stimuli. Environmental stimulation simultaneously associated with either contact pleasure or pain stimulation acquires the property of exciting the same reflexes as either pleasure or pain. Physiologically, therefore, it is possible that chronic localized somatic conditions may through association give rise to conditioned prolonged affective disturbances.—*M. H. Erickson* (Eloise Hospital).

2766. **Laforge, R.** *Der Widerstand im Endstadium der Analyse.* (Resistance in the final stage of analysis.) *Int. Z. Psychoanal.*, 1934, 20, 354-366.—"Resistance, especially that occurring just before the close of analytical treatment, is extremely complicated." One factor in such resistance, which is worthy of emphasis, is the fact that the modern world makes neuroses all but obligatory for some patients if they are to live. Nevertheless the number of successfully completed analyses is encouraging. Study of the difficult cases should lead to knowledge of how to treat even apparently "hopeless" cases.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2767. **Leibig, C.** *Hellseherei und Kriminalistik.* (Clairvoyance and criminology.) *Krim. Mh.*, 1935, 9, 12-18.—Leibig narrates a murder case in which a clairvoyant designated the true perpetrator. Although she finally confessed to having planted the evidence (a skull), the murderer, who had not yet been convicted, committed suicide. A psychiatric examination was made to determine how far her actions rested on deception and how far on autosuggestion in a hypnotic twilight state. She worked in connivance with a detective, and usually first demanded a photograph or said she was too tired to work, thus gaining time to collect information. The psychiatric report was: good intelligence; lively fantasy; shrewd knowledge of human nature and quick judgment; strong need of self-assertion; calculated behavior. The present fraud was planned to the minutest detail.—*M. E. Morse* (Baltimore).

2768. **Lippman, H. S.** *Technical difficulties encountered in child analysis.* *Amer. J. Orthopsychiat.*, 1935, 5, 27-31.—Cases are presented which demonstrate the necessity for a careful preparation of the parents and the child for long-continued therapy. The author sides with Anna Freud against Melanie Klein with regard to the view that interpretations should not be given until the child can accept them.—*J. McV. Hunt* (Worcester State Hospital).

2769. **Low, B.** *Die psychischen Entschädigungen des Analytikers.* (The psychical compensations of

the analyst.) *Int. Z. Psychoanal.*, 1934, 20, 523-530.—The psychoanalyst must contrive to "live from" the experiences and states of the patient. The most successful rapport has been described by Freud in reference to the artist. A similar condition must be achieved by the analyst. His work is likewise creative work. The children's analyst is already aware of many of the necessities, which in his case are forced upon him by the age of his patients. Freud's case studies contain numerous instances of the creative procedure, wherein he relates the condition of the patient to former personal experience.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2770. **Rotter, L.** *Zur Psychologie der weiblichen Sexualität.* (On the psychology of feminine sexuality.) *Int. Z. Psychoanal.*, 1934, 20, 367-374.—A factor of great importance in the development of the sexuality of women is the persistence of a narcissism that involves the male organ. When girls begin to lose their fixation upon the mother they frequently develop the fantasy that the penis of males belongs to them, since they have the power to excite it. This discovery completes the turning away from the mother and establishes the basis for all later conduct by which power is exercised over men. Whether this process is universal or pertains merely to a certain narcissistic type remains to be investigated. In any case the psychological advantages of the position are not sufficient to overcome castration anxiety and inferiority.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2771. **Scheer, F.** *Die Grenzen des psychoanalytischen Geltungsbereiches unter besonderer Berücksichtigung der Freud'schen Lehre.* (The limits of validity of psychoanalysis with special consideration of Freud's doctrines.) Kallmünz b. Regensburg: Lassleben, 1933. Pp. 114.—The author gives first a short introduction to Freud's teachings with special emphasis on those features of psychoanalysis which are relevant for philosophy. Then the question is discussed in how far the generalizing concepts of psychoanalysis give a complete theory of the total mental life. The author distinguishes two kinds of generalizing concepts, those which have a tendency to explain and those which do not have such a tendency. Only the former have a scientific value. Psychological mechanisms are limited to conscious functions. Beyond these limits the spiritual reality begins; to this realm belong all those phenomena which cannot be explained but only experienced. Freud's presuppositions, on the basis of which he derives the "higher mental activities" from the unconscious, are criticized. There exists a realm of reality which is beyond the Freudian theory.—*F. Scheer* (Herrenalb im Schwarzwald).

2772. **Schmeing, K.** *Das "zweite Gesicht" als niedersächsisch-fälische Stammeseigenart und als psychologisches (gestaltpsychologisches und eidetisches) Problem.* ("Second sight" as a peculiarity of the population from Lower Saxony and Falen and as a problem of Gestalt psychology and eidetics.) *Ber. Kongr. dtsch. Ges. Psychol.*, 1934.—The concept of "second sight" means a visual hallucinatory seeing of future events. This peculiar phenomenon seems to

be limited in Germany only to the north-west region. A series of scientifically examined cases is quoted and the phenomena are discussed with regard to modern psychology. At the basis of these phenomena is an eidetic disposition which enables people to "see" certain processes as the visual expressions and continuation of psychic processes, ideas and feelings in which possible or probable future events are anticipated.—K. Schmeing (Berlin).

2773. Schmeing, K. Das "zweite Gesicht" als volkshundliches und psychologisches (gestaltenpsychologisches und eidetisches) Problem. ("Second sight" as an ethnological and psychological (Gestalt and eidetic) problem.) *Z. angew. Psychol.*, 1935, 48, 113-123.—Second sight is taken to mean clairvoyance, with respect to visual hallucinations of future and past events—a sort of art of visual prophecy. A critique of the visual prophecy theories of several German investigators is presented.—J. Steinberg (Columbia).

2774. Wittels, F. Mutterschaft und Bisexualität. (Motherhood and bisexuality.) *Int. Z. Psychoanal.*, 1934, 20, 313-322.—Report of four cases of imaginary motherhood or pregnancy serving as mechanisms in hysteria and kindred disorders. In every case the woman was of the masculine type. In only one did she actually become a mother in the course of the disturbance. Various observations of Freud's are brought to bear in discussing the phenomenon.—H. D. Spoerl (St. Johnsbury, Vt.)

[See also abstracts 2629, 2651, 2800, 2806, 2821, 2830, 2838, 2848, 2852, 2892, 3015.]

#### NERVOUS AND MENTAL DISORDERS

2775. August, H. E. Newer attitudes toward mental abnormalities. *Amer. J. Orthopsychiat.*, 1935, 5, 49-56.—This author summarizes the changes in attitude toward mental abnormalities which have arrived through the development of an interpretative psychiatry.—J. McV. Hunt (Worcester State Hospital).

2776. Baumann, C. Besteht ein Zusammenhang zwischen manisch-depressiver Psychose und Paranoia? (Is there a connection between manic-depressive psychosis and paranoia?) *Z. ges. Neurol. Psychiat.*, 1934, 151, 17-53.—Manic-depressive psychoses and paranoia are different maladies. The views of several authors, notably Lange, Van Valkenburg, Fankenhauser, Specht, Birnbaum, Hoche, Ritterhaus and Kraepelin are presented and discussed. Three case histories of manic-depressive patients are given. The simultaneous appearance of melancholic and paranoid phenomena was discovered, both in a rather clear manner. While the manic phase of a manic-depressive psychosis exists, the paranoid condition has no opportunity to be developed progressively and systematically. The manic-depressive constitution and the paranoid emotional disposition are deeply rooted in the biological life. In the neurophysiological sense one may be related to the other. Both concepts require further delimitation, since they have become

so broad in the field of neuro-physiology.—P. S. de Q. Cabot (Harvard).

2777. Berman, H. H. Treatment of psychoneurosis in state hospitals. *Psychiat. Quart.*, 1935, 9, 104-115.—C. R. Atwell (Boston Psychopathic Hospital).

2778. Berrien, F. K. A study of the drawings of abnormal children. *J. educ. Psychol.*, 1935, 26, 143-150.—A study of the diagnostic significance of the Goodenough drawing scale with 24 post-encephalitic children (average age 14-3), 13 children with "psychopathic personalities" (average age 12-3), and 15 children showing border-line deficiency (average age 13-7). Diagnostic differences appeared on particular items of the drawing scale. A reversal of sex characteristics appeared in the drawings of the post-encephalitics, but the other groups were normal in this respect. Only a few of all the drawings studied showed individual responses or evidence of a "verbalist type." Goodenough's hypothesis that combinations of mature and primitive drawing characteristics occurs in cases of emotional instability was substantiated.—A. W. Melton (Yale).

2779. Bleuler, M. Der Rorschach-Versuch als Unterscheidungsmittel von Konstitution und Prozess. (The Rorschach experiment as a means of distinguishing constitution and process.) *Z. ges. Neurol. Psychiat.*, 1934, 151, 571-578.—A presentation of Skalkweit's conclusions derived from Rorschach protocols and an examination of certain methodological difficulties involved in the Rorschach technique. The author adds his own reservations to Skalkweit's statements and hints that until more fundamental issues and more exact techniques are emphasized one must be careful of trusting the validity of the Rorschach method of experimentation as a means of distinguishing the effects of schizoid constitution on the one hand and of processes on the other in schizophrenia.—P. S. de Q. Cabot (Harvard).

2780. Braun, E. Manisch-depressiver Formenkreis. (Circular manic-depressive psychosis.) *Fortsch. Neurol. Psychiat.*, 1935, 7, 47-56.—Although much of practical value has been written during the past year on the biological side of the problem, as a result of legislation to prevent the transmission of mental disease, the author wishes to omit consideration of such work and limits this article to a discussion of those investigations which are particularly important for clinical work. Among the investigations discussed is included a study by Luxenburger on identical twins. Of his three pairs of twins affected with cyclothymia, one pair was concordant, one pair was discordant, and of the third pair, one twin was a typical case and the other an atypical case. Luxenburger's explanation rests on the apportioning of different exogenous factors. Work by Steen, Ossipow and many others is also discussed briefly in this article. There is a bibliography.—D. S. Oberlin (Newark, Del.)

2781. Cosack, H. Psychische Pubertätssymptome und Schizophrenie. (Mental symptoms of puberty, and schizophrenia.) *Allg. Z. Psychiat.*, 1933, 99, 51 ff.—This article deals with the question, so often raised in the literature, of the similarity between certain

schizophrenic symptoms and mental changes likely to appear temporarily at the age of puberty. The attempt is made to show the relationships in detail on the basis of eight case histories. Aside from "carelessness," which is different in kind in schizophrenics and adolescents, the analogous symptoms pointed out by other writers were confirmed. There was also extensive agreement as regards attitude toward self and environment. In spite of external similarities, however, schizophrenia and puberty do not agree in their basic characteristics, and the imperfect closure of personality springs from different roots in the two groups. Hecker's view that hebephrenia represents an arresting of personality at the stage of puberty is rejected.—*H. Cosack* (Breslau).

2782. Dreyfuss, K. *Der Fall Wieland*. (The Wieland case.) *Int. Z. Psychoanal.*, 1934, 20, 210-240.—Wieland was an epileptic who was treated at Heidelberg in 1932 after attempted murder of his mother-in-law and wife. The cathartic method of analysis was used, and under hypnosis the patient reproduced the four attacks of the "twilight condition" indicated in his history. The crime was committed in one such attack. On these occasions the patient confused the situation with an incident of a battle he had taken part in while a soldier. This incident, augmented by fantasy constructions, was repeated during the catharsis. Other psychogenic factors were investigated in detail. There is a theoretical schematizing of the case and a discussion of its prognosis.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2783. Flinker, R. *Die neurologischen Symptomkomplexe bei Pellagra*. (Neurological symptoms in pellagra.) *Z. ges. Neurol. Psychiat.*, 1934, 151, 642-655.—In the clinical case discussed by the author a positive and a negative supporting reaction occur. It is evoked much more in the upper than in the lower extremities.—*P. Krieger* (Leipzig).

2784. Ford, F. R. *Paroxysmal lacrimation during eating as a sequel of facial palsy; syndrome of crocodile tears*. *Arch. Neurol. Psychiat.*, Chicago, 1933, 29, 1279-1288.—This syndrome, described in 1928 by Bogorad, was discovered by Kaminsky and Kroll in 1929. The author gives four new cases in which unilateral epiphora, following facial paralysis, accompanies mastication and even ingestion of liquid. At the same time there is a generalized facio-muscular diffusion when any slight effort is made. These reactions are attributed to the defective quality of the regenerated fibers after facial lesion, the fibers of the buccal articular muscle having been redistributed to all the muscles. The phenomenon is maintained throughout several years. The author presents an analogous explanation for lacrimation. It is assumed that the glandular fibers of the facial nerve, which are normally restored to the submaxillary gland via the chorda tympani, have accompanied facial nerve fibers restored to the lacrimal glands by way of the sphenopalatine ganglion and the path of the zygomatico-temporal nerve; then the reflexes provoking salivation also elicit the watering of the eyes. The author also gives an explanation of the auriculo-

temporal syndrome, in which mastication influences congestion and sweating at the temple. The parotid fibers of the auriculo-temporal nerve, which are injured in the course of regeneration, accompany the sudoral and vaso-dilatation fibers of the nerve, whence comes the abnormal response to reflexogenous salivary stimuli.—(Courtesy *Année psychol.*)

2785. Fuchs, W. *Körperbau- sowie Zahnuntersuchungen bei Schizophrenen und Manisch-Depressiven*. (Constitutional and dental investigations in schizophrenics and manic-depressives.) Erlangen: Döres, 1934. Pp. 27.—*R. R. Willoughby* (Clark).

2786. Fuller, R. G. *What happens to mental patients after discharge from hospital*. *Psychiat. Quart.*, 1935, 9, 95-104.—A follow-up of 947 cases ten years after leaving a state hospital.—*C. R. Atwell* (Boston Psychopathic Hospital).

2787. Gallus. *Nimmt die Zahl der Geisteskranken zu?* (Is the number of the mentally ill increasing?) *Allg. Z. Psychiat.*, 1934, 102, 94ff.—*P. Klimpel* (Leipzig).

2788. Geyer, H. *Die Beurteilung des angeborenen Schwachsinns zum Zwecke der Sterilisierung*. (Critical discussion of congenital feeble-mindedness as related to sterilization.) *Münch. med. Wschr.*, 1934, 81, 1300-1302.—A study of 239 cases in Kiel to furnish a working basis for the application of the new law in which congenital really means inherited.—(Courtesy *Bibliogr. eugen.*)

2789. Glaser, E. M. *The treatment of agraphia by kinesthetic stimulation and psychotherapy*. *J. nerv. ment. Dis.*, 1935, 81, 47-54.—Report of a case and its successful treatment.—*C. R. Atwell* (Boston Psychopathic Hospital).

2790. Gordon, R. G., Norman, R. M., & Berry, R. J. A. *Neurological abnormalities. Their occurrence and significance as illustrated by an examination of 500 mental defectives*. *J. Neurol. Psychiat.*, 1933, 14, 97-107.—Mental defectives of all grades are subject to abnormalities in the nervous system.—(Courtesy *Bibliogr. eugen.*)

2791. Hennemann, G. *Angst*. (Anxiety.) *Z. Menschenk.*, 1935, 10, 229-235.—This article is essentially a review of K. Rado's *Zwangsercheinungen und Angstzustände* (1934). Compulsive phenomena may be thoughts, feelings or impulses which arise against the will and involve a certain feeling of anxiety. Rado and Hennemann maintain that therapy has no concern with the specific content of the phenomena (fear of open places, bacilli, blushing, etc.).—*J. Deussen* (Markkleeberg).

2792. Hincks, C. M. *The next quarter century*. *Ment. Hyg.*, N. Y., 1935, 19, 69-77.—Mental hygiene must continue to seek and evaluate new methods and techniques for the care of mental illnesses. It must continue in the role of intermediary between specialists, the public, professions, and government. Moreover, it must further the happiness and efficiency of the individual through the understanding of him as an organism in which the soma and the psyche are

- parts of the whole.—*H. S. Clapp* (Grasslands Hospital, Valhalla, N. Y.).
2793. *Ilberg, G. Ueber Schwangerschaftsunterbrechung.* (Interruption of pregnancy.) *Allg. Z. Psychiat.*, 1934, 102, 1ff.—The author deals chiefly with the problem of interruption of pregnancy in cases of mental diseases.—*P. Klimpel* (Leipzig).
2794. *Israeli, N. Outlook of a depressed patient, interested in planned gambling, before and after his attempt at suicide.* *Amer. J. Orthopsychiat.*, 1935, 5, 57-63.—When his gambling schemes failed this patient became depressed and hopeless and attempted suicide, but he regained confidence in his schemes after the attempt at suicide failed.—*J. McV. Hunt* (Worcester State Hospital).
2795. *Jenkins, R. L. Dissimilar identical twins: results of brain injury at birth.* *Amer. J. Orthopsychiat.*, 1935, 5, 39-42.—One of a pair of female identical twins who suffered a birth injury resulting in some choreo-athetoid movements, because of competitive disadvantages with her normal sister is seen to have developed a discouraged, over-reticent attitude toward life. Although test scores for the two twins are similar, the injured twin is three years behind in school.—*J. McV. Hunt* (Worcester State Hospital).
2796. *Jung, E. Zur Psychogenese reaktiver Depressionen.* (Contribution to the psychogenesis of reactive depressions.) *Schweiz. Arch. Neurol. Psychiat.*, 1934, 34, 267-279.—At the bottom of the cited cases of depression are ambivalent attitudes, which were the result either of the situation or of a reinforcement of an already existing "constitutional ambivalence" (Freud). In addition there is an exaggerated emphasis on self (in self-accusations and feelings of guilt) and an inability to reach decisions.—*P. Krieger* (Leipzig).
2797. *Kehrer, F. Zur Frage der Beschäftigungsbehandlung in der psychiatrischen Klinik.* (The problem of occupational therapy in the psychiatric clinic.) *Allg. Z. Psychiat.*, 1934, 102, 120ff.—*P. Klimpel* (Leipzig).
2798. *Kogerer, H. Psychotherapie. Ein Lehrbuch für Studierende und Ärzte.* (Psychotherapy. A textbook for students and physicians.) Vienna: W. Maudrick, 1934. Pp. 167. M. 10.—After a short presentation of the history of psychotherapy, the author discusses the question how far psychotherapy can be taught and learned. Then follows a critical review of the principal varieties of psychotherapy, its technique and its indication. The second part of the book deals with the problem of general symptomatology, with different forms of neuroses like psychasthenia (Janet), hysteria, hysteric reaction type, compulsion neurosis. Finally, the principal types of psychosis, especially schizophrenia and manic-depressive psychosis, are discussed.—*E. Stransky* (Vienna).
2799. *Krumdieck, C. F. Introducción al estudio de la psiquiatría.* (Introduction to the study of psychiatry.) Lima: Herrera, 1934. Pp. xvi + 268.—The work deals with the following problems of abnormal mental phenomena: etiology; symptoms; mental constitution; syndromes; mental abnormalities (classification); and treatment. All abnormal individuals are either psychopathic or psychotic. Under the former genus are included abnormalities produced by bodily lesions of an external origin, e.g. endocrine deficiency; lesions of internal origin, e.g. dementia praecox, epilepsy; and abnormalities produced by defects of organic development, e.g. feeble-mindedness. Under the latter division are constitutional infirmities, e.g. paranoia, hysteria; and those of intermediate psychogenesis, e.g. war and prison psychoses. A plea for prevention by mental hygiene is stressed in the final chapter.—*R. M. Bellows* (Ohio State).
2800. *Kulovesi, Y. Ein Beitrag zur Psychoanalyse des epileptischen Anfalls.* (A contribution to the psychoanalysis of the epileptic attack.) *Int. Z. Psychoanal.*, 1934, 20, 542-549.—In the case of a female epileptic with a fixation at the anal-erotic stage it is concluded that the attacks signify "orgasm as well as death." There are brief observations on another case.—*H. D. Spoerl* (St. Johnsbury, Vt.).
2801. *Lafora, G. R. Los niños mentalmente anormales.* (Mentally abnormal children.) (2nd ed.) Madrid: "La Lectura," 1934.—This revised and enlarged edition is in reality a manual of child psychology and will be useful not only to psychiatrists but also to teachers and in general to all concerned with the upbringing of children. The exposition is clear and the bibliographic range wide.—*M. E. Morse* (Baltimore).
2802. *Louttit, C. M., & Frith, G. D. The Dorbets—a feeble-minded family.* *J. abnorm. soc. Psychol.*, 1934, 29, 301-313.—In the history of the Dorbets is an example of a non-permanent family which raises problems not found in one more permanently located. The family becomes known to West Virginia, Ohio, Illinois, Indiana, Missouri, and Texas. As the problem is an inter-state one, it is suggested that some Federal method ought to be provided to handle cases of this nature.—*C. H. Johnson* (Boston Psychopathic Hospital).
2803. *Malamud, W. Outlines of general psychopathology.* New York: Norton, 1935. Pp. 462. \$5.00.—The phenomena of abnormal mental activity are grouped under the headings of behavior, experience, and their physiological concomitants. Behavioral phenomena are characterized by direction (introvert or extravert), quantity, and quality. Their abnormality is evidenced in reception, intellection, or expression. Abnormality of experiential phenomena shows itself in false attitudes and evaluation. Determinants of the phenomena are constitutional, ontogenetic (covered by psychoanalytic, individual, and conditioned reflex theory), situational, organic, or personalistic. Synthesis of the phenomena into the characteristic reaction-types of the personality occurs by virtue of the functions of ratiocination, accretion, and self-assertion. A glossary and bibliography are appended.—*L. A. Riggs* (Clark).
2804. *Malzberg, B. The prevalence of mental diseases among the urban and rural populations of New York State.* *Psychiat. Quart.*, 1935, 9, 55-87.—

There is a lower incidence of mental disease among the rural population than among the urban population. There also appears to be, on the whole, a steady progression in the relative incidence of mental disease with increasing size of population. Variations in environmental rates of mental disease are independent of age differences in the several populations. Possible explanations are: the greater ease with which certain types of mental patients may be cared for at home in the rural sections, differences in proportions of the several nativity and racial groups, and the greater prevalence of alcoholic and syphilitic disorders in urban centers.—C. R. Atwell (Boston Psychopathic Hospital).

2805. McKinney, F. An outline of a series of lectures on mental hygiene for college freshmen. *J. abnorm. soc. Psychol.*, 1934, 29, 276-286.—Although only from 10 to 15% of students are badly in need of mental guidance, 85% show need for guidance in adjusting to the college situation, and all students will encounter conflicts, frustration of motives, and emotional problems, and will have to make an adjustment to them. The lectures on mental hygiene of which this paper is an outline formed half of a semester course at the University of Missouri. They are an attempt to point out the principles of mental health and to indicate the means of preventing undue emotional stress and strain.—C. H. Johnson (Boston Psychopathic Hospital).

2806. Meng, H. Das Problem der Organpsychose. Zur seelischen Behandlung organisch Kranker. (The problem of organic psychosis. On the mental treatment of organic disease.) *Int. Z. Psychoanal.*, 1934, 20, 439-458.—In numerous instances helpful treatment by the methods of psychotherapy can be administered to sufferers from organic disorder who cannot be greatly helped by medical means. In such cases one may speak of "organic psychosis" in a medical rather than a psychiatric sense. The "psychosis" resembles actual psychoses in that the ego is disturbed in a primary way. Examples of the diseases treated are glandular malfunctions in connection with which normal growth is hindered at the onset of adolescence. The question of cause and effect has yet to be settled. Treatment consists of adaptations of Freud's original cathartic method without the use of hypnosis.—H. D. Spoerl (St. Johnsbury, Vt.)

2807. Menninger, W. C. Psychological factors in the etiology of diabetes. *J. nerv. ment. Dis.*, 1935, 81, 1-13.—Diabetes may be the direct result of psychological disturbances. 5 of the author's 22 cited cases show such an origin, and several others suggest the possibility of such a causal relationship. Further studies of both conscious and unconscious psychological influences in diabetes should be made. Bibliography.—C. R. Atwell (Boston Psychopathic Hospital).

2808. Page, J. Superstition and personality. *J. educ. Psychol.*, 1935, 26, 59-64.—A study of the frequency of belief in 25 superstitions among 50 manic-depressive patients, 50 dementia praecox patients

and 50 hospital attendants ("normals") by means of a true-false questionnaire which permitted a "doubtful" response. No difference between the two psychotic groups was found, but both groups believed in more superstitions than the "normals." Belief in 6 of the 25 was reliably more frequent in the psychotics than in the "normals." The Heidebreder and Neymann-Kohlstedt introversion tests were given to all subjects. The 10 most introverted psychotic subjects were more superstitious than the 10 most extraverted psychotic subjects of each classification, but no consistent relationship between introversion-extraversion and belief in superstitions was found among the "normals."—A. W. Melton (Yale).

2809. Penrose, L. S. The relative aetiological importance of birth order and maternal age in mongolism. *Proc. roy. Soc.*, 1934, 115B, 431-450.—Data from the family histories of 224 mongolian imbeciles show the significance of maternal age.—(Courtesy *Bibliogr. eugen.*)

2810. Pollock, H. M., Malzberg, B., & Fuller, R. G. Hereditary and environmental factors in the causation of dementia praecox and manic-depressive psychoses. Chapter II. Do Mendelian laws apply to the inheritance of manic-depressive psychoses? *Psychiat. Quart.*, 1934, 8, 337-371.—The observed frequency of mental disease among the siblings of patients with manic-depressive psychosis is inconsistent with a mode of inheritance based upon the supposed existence of Mendelian unit characters. There appears to be, however, a familial basis for the development of mental disorders in many cases, though the underlying laws of their manner of transmission are not yet understood. 20 selected pedigrees are cited.—C. R. Atwell (Boston Psychopathic Hospital).

2811. Pollock, H. M., Malzberg, B., & Fuller, R. G. Hereditary and environmental factors in the causation of dementia praecox and manic-depressive psychoses. Chapter III. Family stock of dementia praecox patients. *Psychiat. Quart.*, 1934, 8, 553-599.—Though inheritance plays a general role in the transmission of these diseases, environmental influences nevertheless are also important factors. 21 selected pedigrees are cited.—C. R. Atwell (Boston Psychopathic Hospital).

2812. Pollock, H. M., Malzberg, B., & Fuller, R. G. Hereditary and environmental factors in the causation of dementia praecox and manic-depressive psychoses. Chapter IV. Comparative studies of the prevalence of mental disease among relatives of patients and among the general population. *Psychiat. Quart.*, 1935, 9, 129-142.—A discussion of the literature concerning the expected incidence of mental disease.—C. R. Atwell (Boston Psychopathic Hospital).

2813. Porter, J. M., Jr. Galvanic skin phenomena in epileptics. *J. gen. Psychol.*, 1934, 11, 24-45.—Apparent skin resistance and galvanic skin responses were studied in a group of 70 epileptic patients in a non-seizure state, and these results were compared with those obtained on 17 normal S's. The average

apparent skin resistance of epileptics was higher than that of the control group, and epileptic males were higher in this respect than epileptic females. A study was also made of 10 patients during epileptic seizures, and it was found that the average apparent skin resistance was much lower.—*H. Cason (Wisconsin).*

2814. Potter, H. W. Clinical work in the state schools for mental defectives. *Psychiat. Quart.*, 1935, 9, 27-47.—A study of the clinical work in New York state institutions for mental defectives with recommendations for its improvement.—*C. R. Atwell (Boston Psychopathic Hospital).*

2815. Richter, A. Die Krise der Seelenheilkunde. (The crisis in psychotherapy.) *Z. ges. Neurol. Psychiat.*, 1934, 151, 206-224.—Psychotherapy is conceived as a medical procedure whereby treatment and cure are accomplished by the systematic application of psychic techniques to the mental effects of phenomena associated with disease. Both subject and object are regarded in the light of the reciprocal psychical capacities of patient and physician. Body and mind are necessarily involved. Hypnosis, Dubois' method of treatment by persuasion, Coué's method of suggestion, Freud's psychoanalytic doctrines, Adler's individual psychology and Jung's analytic psychology receive critical attention. The views of other exponents are discussed in relation to psychotherapeutic practice. The neurotic's demand for medical attention is based on four important needs, those for information, understanding, explanation and treatment. Many avenues of approach are possible to restore the mental health of the neurotic, and it is the task of the physician to know every possible one, to select the most appropriate for the particular case and to be continually open-minded as a clinician.—*P. S. de Q. Cabot (Harvard).*

2816. Roemer, H. Die Bedeutung der Familie für die psychische Hygiene. (The significance of the family for mental hygiene.) *Z. psych. Hyg.*, 1934, 7, 18.—*P. Klimpel (Leipzig).*

2817. Rombouts, J. M. Affektdynamik und Psychotherapie. (Emotional dynamics and psychotherapy.) *Zbl. Psychother.*, 1934, 7, 340-347.—Rombouts brings out the identity of the dynamic and energetic relationships in the physical organism and the ego-organization, particularly in regard to radiation and discharge of tensions, positive and negative trophism, inner equilibrium, and assimilation and rejection. The greater the tension, the wider the radiation until, without discharge, *Scheintod* occurs. Sudden discharge causes a storm of clonic movements in many directions, the anger or desperation representing attack or flight. External reaction may be inhibited until the affect appears only as a facial expression, or, finally, it may be detected only by the psychogalvanic reflex or introspection. Discrimination between the assimilable and unassimilable occurs only with the development of the conscious ego. In its progressive integration toward the ideal of complete inner security, purity and freedom, the ego expels the foreign or defends itself against it.

The object of depth therapy is to help the ego in this process, first by relieving emotional tensions and their harmful organic effects. Much of the succeeding reconstruction can be left to the normal tendency to autostatic regulation, although during the synthetic phase the patient should become thoroughly acquainted with what he can assimilate.—*M. E. Morse (Baltimore).*

2818. Rosanoff, A. J. Some clinical manifestations of traumatic decerebration. *Psychiat. Quart.*, 1935, 9, 116-128.—It may be expected that if one of a pair of monozygotic twins shows one of the syndromes under consideration, the other of the pair will also be affected—not invariably, but consistently more often than in cases of dizygotic twins. In a significant proportion of cases the affection in the two twins of a monozygotic pair may be expected to be dissimilar quantitatively or even qualitatively; the reason being that factors other than heredity may determine both degree of vulnerability and severity, extent, and localization of the birth trauma. The near relatives of subjects with decerebration syndromes may be expected to be affected more often than random groups from the unselected population. It may be expected because of common prenatal and intranatal factors that dizygotic twin brothers and twin sisters of subjects affected will also be affected. Subjects with a history of premature birth or underweight condition at birth will furnish a higher proportion of any given traumatic decerebration syndrome than the unselected population. Inversely, a relatively high proportion of cases with such a history may be expected among subjects exhibiting a given traumatic syndrome. Because this history occurs more often in twins than in single births the incidence of any given decerebration syndrome may be expected to be higher among twins. Any decerebration syndrome attributable to birth trauma may be expected to occur mainly as a disorder of childhood or adolescence. Such a syndrome will be found with greater frequency in boys than in girls and among the first-born than among the later-born children. It may be expected that an etiologic relationship will be found to exist between any factor of dystocia and any given decerebration syndrome. It may be expected that with significant frequency any of them will be found in combination with one or more of the others in the same individual.—*C. R. Atwell (Boston Psychopathic Hospital).*

2819. Ruffin, H. Ueber die Gewinnung von Erlebnisinhalten des epileptischen Anfalls- und Ausnahmezustandes mit Hilfe von Wachsuggestion und Hypnose. (On the acquisition of experience content of the epileptic attack and exceptional states with the help of waking suggestions and hypnosis.) *Dtsch. Z. Nervenheilk.*, 1929, 107, 271-315.—(Not seen).

2820. Scheid, K. F. Die allgemeine Psychopathologie im Jahre 1934. (General psychopathology during 1934.) *Fortsch. Neurol. Psychiat.*, 1935, 7, 72-84.—In so large a field as this the author has had to limit himself carefully to a survey of such articles as come strictly under psychopathology. He deals with

several concerned with sensation and perception, including a study by Benedek on perceptual anomalies in insulin shock, and one by Fischer on the schizophrenic world of experience. There are also sections dealing with studies of disturbances of idea and thought, and of will. The second main division is concerned with the fundamental properties of experience; work on the consciousness of self, time awareness, and memory is included herein. The final part, the background of experience, includes studies of consciousness, intelligence, and personality. There is a bibliography.—D. S. Oberlin (Newark, Del.)

2821. Schilder, P. **The somato-psyche in psychiatry and social psychology.** *J. abnorm. soc. Psychol.*, 1934, 29, 314-327.—The image a person has of his body is partially based on sensations and partially on representations and thoughts. It is in many respects different from the actual body. Every disturbance in the emotional life immediately reacts on the body image and libidinous disturbances provoke changes in the schema of the body. The unity of the body image is disrupted when libido is too unequally distributed over the body and when some parts are invested with too great an amount of libido. When there is a disappointment concerning one part of the body, a person may feel there is something wrong with the body as a whole, or he may finally feel that it is not his body image. He has to build it up with the help of an integrated personality and an integrated sexuality.—C. H. Johnson (Boston Psychopathic Hospital).

2822. Schilder, P. **Clinical studies on particular types of depressive psychoses—their differential diagnosis from schizophrenic pictures and some remarks on the psychology of depressions.** *J. nerv. ment. Dis.*, 1934, 80, 501-527; 658-683.—Citation of cases with discussion of the mechanisms involved and the theoretical implications.—C. R. Atwell (Boston Psychopathic Hospital).

2823. Schneider, C. **Zur Psychologie der Lungentuberkulösen.** (The psychology of pulmonary tuberculosis.) *Schweiz. med. Wschr.*, 1933, 63, 628-630.—Some observations on the psychic phenomena of patients in sanatoria, including strange presentiments, anxiety about death, resignation, and often great moral maturity.—(Courtesy *Année psychol.*)

2824. Schöppel, H. **Hautveränderungen und psychische Störungen bei Syringomyelie.** (Skin changes and psychical disturbances in syringomyelia.) Bonn: Kubens, 1932. Pp. 26.—(Not seen).

2825. Schorsch, G. **Zur Theorie der Halluzinationen.** (On the theory of hallucinations.) Leipzig: Barth, 1934. Pp. 84. RM. 5.70.—The first part of the book is a historical review of the various theories of hallucination. These theories are greatly dependent on the contemporary views of the nature of sensations and perceptions. Hallucinations arise when those biological processes which inform us about environment are suppressed by subjective factors.—G. Schorsch (Leipzig).

2826. Schultz, I. H. **Psyche und Allergie.** (Psyche and allergy.) *Forsch. Fortsch. dtsch. Wiss.*, 1934, 10,

421-422.—The writer deals with the interconnection between supersensitivity-reactions (urticaria, asthma, etc.) and mental attitudes.—J. Deussen (Markkleeberg).

2827. Schultz, J. H. **Körperliche Auswirkungen seelischer Depressionen.** (Somatic effects of psychic depressions.) *Umschau*, 1934, 38, 891-892.—The author emphasizes the fact that every psychic depression is a disturbance of the organism as a whole. One can observe mental disturbances also in the so-called purely organic diseases, and on the other side there is in depressive states, e.g., in manic-depressive psychosis, a wealth of organic disturbances.—J. Deussen (Markkleeberg).

2828. Schulz, B. **Versuch einer genealogisch-statistischen Ueberprüfung eines Schizophreniematerials auf biologische Einheitlichkeit.** (Attempts at a genealogical and statistical reexamination of a mass of material on schizophrenia considered as to its biologic uniformity.) *Z. ges. Neurol. Psychiat.*, 1934, 151, 145-170.—(Courtesy *Bibliogr. eugen.*)

2829. Sihle, M. **Über das Weltbild des Arztes und den Sinn der Krankheit. Ein Appell zur Lebenssynthese.** (Concerning the sphere of the physician and the nature of sickness. A call for a life synthesis.) Vienna, Leipzig, Berne: Weidmann, 1934. Pp. 241. RM. 10 (cardboard), 12 (linen).—Based on concrete data from an analytical study, the book describes life, suffering, dying and death as a related whole having its roots in the genesis of life. Sickness is disconnection among the three factors essential to life—cellular tissue, nutrition system, neural pattern. The author sets forth a theory of the genesis of all life and traces the sovereignty of the law of life through illness and death. He discusses the position of modern science and makes an analysis of this causal genetic phenomenon, holding that only on the basis of the understanding of individual life in relation to all life can the hope of the physician to bring health be realized.—M. Sihle (Riga).

2830. Simonson, E. **Erfolgreiche Behandlung einer schweren, multiplen Konversionshysterie durch Katharsis.** (Successful treatment of a difficult conversion hysteria by catharsis.) *Int. Z. Psychoanal.*, 1934, 20, 531-542.—"Today, in cases that do not involve analysis, a treatment built up from catharsis and items of psychoanalytical experience may accomplish more than the old catharsis of 40 years ago. We have good reason for not disregarding Ferenczi's suggestion concerning the use of what he calls neo-catharsis."—H. D. Spoerl (St. Johnsbury, Vt.)

2831. Skalweit, W. **Bemerkungen zum Schizophrenieproblem.** (Notes on the problem of schizophrenia.) *Allg. Z. Psychiat.*, 1934, 102, 102ff.—Schizophrenia is not a defect or disappearance of functions but rather a disorganization or change of functions. According to the author a brain lesion should be assumed in all cases.—P. Klimpel (Leipzig).

2832. Spranger, E. **Das ethische Moment im Gesundsein und Kranksein.** (The ethical aspect in health and disease.) *Forsch. Fortsch. dtsch. Wiss.*, 1934, 10, 369-370.—"Disease as an experience signi-

fies a total state, an existential affliction." On the other hand, the physician has primary interest only in disease as an "objective datum." The writer characterizes the possibilities of conflict which may thus arise and concludes with a suggestion that the sick person and his physician must not struggle against but with nature.—*J. Deussen* (Markkleeberg).

2833. Stransky, E. *Lässt sich vom Standpunkt der Psychoneurologie aus eine allgemeingültige psychosomatische klinische Krankheitslehre schaffen?* (Can a generally valid psychosomatic clinical theory of disease be built up from the standpoint of psychoneurology?) *Forsch. Fortsch. dtsch. Wiss.*, 1934, 10, 398-399.—The writer maintains that neurology and the theory of neuroses are not based entirely upon the same presuppositions. The former starts from the body, the latter from the mind. In both fields mind and body appear only in an additive relationship, and not in organic synthesis, as they should be and may be in the future. The case is the same in the realms of psychopathology and psychiatry.—*J. Deussen* (Markkleeberg).

2834. Trunk, H. *Ueber Psychosen in der Haft.* (Psychoses in prison.) *Allg. Z. Psychiat.*, 1934, 102, 89.—*P. Klimpel* (Leipzig).

2835. Van der Horst, L. *Constructive apraxia.* Psychological views on the conception of space. *J. nerv. ment. Dis.*, 1934, 80, 645-650.—It is doubtful whether constructive apraxia can be attributed to an affection of the optic-kinetic association. The affection is connected with the visual image of the object and also with the mental image of the projected movement. The result of an atrophied function of the spatial sense is a way of acting similar to that in young children.—*C. R. Atwell* (Boston Psychopathic Hospital).

2836. Voelker, C. H. *Therapy of the endocrinopathic dyslogia in cretinism.* *Amer. J. Orthopsychiat.*, 1935, 5, 64-65.—This author points out that the speech pathology in cretinism involves a lack of vigor and precision in myologic coordinations, and therefore, in instructing a cretin, the speech model must have each syllable drawn out.—*J. McV. Hunt* (Worcester State Hospital).

2837. Walsh, W. S. *Making our minds behave.* New York: Dutton, 1935. Pp. 277. \$2.50.—This book presents the various problems of mental hygiene for the layman in ten chapters. Some of the problems discussed in particular are the general social and individual settings of the average man; the influence of past teachings and prejudices, and the indirect forces of mental and physical states upon immediate situations; the general tendency to accept things without reflection and the ready credence of superstitions and folk beliefs; the value of earnest application and having a daily routine in life; and the question of self-expression. An index is given of the subject matter.—*M. H. Erickson* (Eloise Hospital).

2838. Weiss, E. *Die Strassenangst und ihre Beziehung zum hysterischen Anfall und zum Trauma.* (Street anxiety and its relation to hysterical attack and trauma.) *Int. Z. Psychoanal.*, 1934, 20, 419-438.

—Anxiety over going upon the street occurs both as the vehicle of hysterical attacks and following traumas. In such cases the street represents freedom, loss of protection, etc., and the situation may be interpreted as a refusal to adjust to reality and life. The attacks which occur in the street are characterized by a feeling of helplessness and often of estrangement from the ego. Their etiology is traced to the castration complex on the suppressed genital level. The dynamic element, which clearly operates from within, appears to be the death instinct.—*H. D. Spoerl* (St. Johnsbury, Vt.)

2839. White, W. A. *The frontier of the mind.* *Ment. Hyg., N. Y.*, 1935, 19, 78-94.—Following a summary of the fundamental principles which must be understood in order to answer the question how far man may be expected to go in the future, examples are given illustrating how forces at man's disposal may become distorted and impaired in their utilization. Emphasis is placed upon the modifiability of the organism and its importance to therapy. In the future much of the therapy now concerned with the physical will be abandoned and new therapy applied to the mind, which is the more modifiable portion of the organism. A new era in the study of the mind is being entered upon. Since we are cognizant of the totality of the organism, we are now able to ask intelligent questions of this organism. Man will therefore be able to reach a more accurate understanding of himself.—*H. S. Clapp* (Grasslands Hospital, Valhalla, N. Y.)

2840. Wildermuth, H. *Physiologischer Fetischismus.* (Physiological fetishism.) *Allg. Z. Psychiat.*, 1934, 102, 39.—Through the use of clothes the sexual drive is more and more displaced from the genitals to the secondary sex characteristics. Thus a "physiological" fetishism arises which leads without sharp limits into the realm of pathological fetishism.—*P. Klimpel* (Leipzig).

2841. Wolfberg, L. R. *The effect of intercurrent somatic disease on manic-depressive reactions.* *Psychiat. Quart.*, 1935, 9, 88-94.—Six cases are cited and the author concludes that "(1) In some cases associated somatic disease has a beneficial influence on manic-depressive reactions. (2) A great many theories have been proposed to explain this phenomenon, but no single theory is adequate. (3) The non-specificity of the curative agent raises the question whether the operation is similar to that of a shock reaction."—*C. R. Atwell* (Boston Psychopathic Hospital).

[See also abstracts 2606, 2731, 2732, 2739, 2846, 2849, 2857, 2866, 2973, 3021.]

## PERSONALITY AND CHARACTER

2842. Bieberbach, L. *Persönlichkeitsstruktur und mathematisches Schaffen.* (Personality structure and mathematical creation.) *Forsch. Fortsch. dtsch. Wiss.*, 1934, 10, 235-237.—With the aid of Jaensch's structure psychology, the writer investigates the influence of nationality, blood and race upon the creative styles of mathematicians. According to his

view, Landau, Cauchy, etc., belong to a "radiating type" (*Strahltypus*) characterized by hostility against life and emphasis upon intellect; Maxwell, Gauss, Hilbert, etc., belong to the "integrated type" which is integrated with reality and with itself. As early as 1893 Klein referred to the racial determination of mathematical creation.—*J. Deussen* (Markkleeberg).

2843. **Blatz, W. E.** Human needs and how they are satisfied. (Child Welf. Pamphl. No. 44.) *Bull. St. Univ. Ia*, 1934, n. s. No. 768. Pp. 10.—Security is a fundamental human need. The secure individual is one who when presented with a problem chooses an alternative and then is willing to accept the consequences, whatever they may be. Independence is achieved through learning. Every individual may be regarded as striving for security in four phases of his social milieu, a purpose for living, a vocation, an avocation, and social intimacies. If we fail in getting security in one division we can compensate in the others.—*B. Wellman* (Iowa).

2844. **Blatz, W. E.** The importance of failure. (Child Welf. Pamphl. No. 45.) *Bull. St. Univ. Ia*, 1934, n. s. No. 769. Pp. 12.—Learning is perhaps the only instinct with which human beings are born. It is a perpetual and continuous phenomenon in every child from the time he is born until he dies. In any learning situation three factors are manifest—motivation, capacity and persistence. The experience of failure is an important contributing factor toward ultimate success. We can develop children who are ambitious, intelligent, self-confident and trusting on the basis of the importance of failure.—*B. Wellman* (Iowa).

2845. **Bridges, J. W.** The meaning and varieties of love. Cambridge, Mass.: Sci-Art, 1935. Pp. xxvii + 240. \$2.25.—"It is the aim of this book to analyze love into its essential and associated factors, to trace the course of its development, to describe some of its forms, and to indicate its probable ultimate meaning."—*D. Shakow* (Worcester State Hospital).

2846. **Brüel, O.** On the genetic relations of certain obsessional-neurotic character traits (integrity-complex). *J. nerv. ment. Dis.*, 1935, 81, 43-46.—"(1) Corroboration of the fact, already elsewhere established, that sadistic impulses and parsimony are often found together in the obsessional neurosis. (2) Discussion of the genetic relationship between the character traits of which parsimony is derived from the sadistic disposition—evident, because the patients feel attacks on their monetary position as a sort of painful interference, violating their personal integrity—an act which they, sadistic themselves, very strongly resent. The main agency here is the anti-masochistic component in the sadistic personality—a factor never lacking in the true sadist. (3) The existence and common use—for instance in the Danish language—of phrases and modes of speech clearly illuminating the above-mentioned psychogenetic relationship in employing the same words and expressions, when talking about a person taking advantage of another either for sadistic or monetary purposes."—*C. R. Atwell* (Boston Psychopathic Hospital).

2847. **Crook, M. N., & Thomas, M.** Family relationships in ascendance-submission. *Publ. Univ. Calif. Los Angeles Educ. Phil. Psychol.*, 1934, 1, 189-192.—"Scores on the Allport Ascendance-Submission Test obtained from university students and their parents were used to determine the following correlations: mothers-daughters, fathers-daughters, and husbands-wives [i.e. mothers-fathers of university students]. All correlations were found to be negative and not reliably greater than zero."—*R. R. Willoughby* (Clark).

2848. **Eidelberg, L.** Beiträge zum Studium des Masochismus. (Contribution to the study of masochism.) *Int. Z. Psychoanal.*, 1934, 20, 336-353.—Masochism is especially difficult to deal with by analysis. In the case reported it was a long and arduous task to convince the patient of the operation of what is here called the "masochistic mechanism." This mechanism is the arrangement by which the patient is persuaded that he himself provokes the supposedly objective difficulties. These difficulties, and the secret enjoyment of them, are of course the basis of the masochism. Further study with other cases is needed to establish a universality of the masochistic mechanism. It belongs to the class of recognized mechanisms like projection, introjection, repression, etc.—*H. D. Spoerl* (St. Johnsbury, Vt.).

2849. **Fleck, U.** Ueber das Epileptoid und den epileptischen Charakter. (On epileptoid and epileptic character.) *Arch. Psychiat. Nervenkrankh.*, 1934, 102, 383.—With bibliography.—*P. Klimpel* (Leipzig).

2850. **Glas, N.** Die Formensprache des Gesichtes. Neue Wege zu einer Physiognomik des Menschen. (Facial self-expression. A new manner of studying the physiognomy of persons.) Vienna, Leipzig, Berne: Weidmann, 1934. Pp. 160. RM. 8 (card-board), 10 (linen).—Based on extensive observation and systematic comparative study, a practical medical man discusses the real place of physiognomy in the study of the personality. He takes a lead from Goethe's observation of nature and Steiner's development of the method. Thereby has been made possible a searching analysis of the fundamental types of physiognomy and an interpretation through them of characterological and psychological aspects as related to the total personality. An understanding of an ailment can be attained only when value is given to the mental-spiritual as well as to the physical. 125 pen sketches show the fundamental principles of a study of physiognomy.—*N. Glas* (Vienna).

2851. **Heun, E.** Kretschmer's Lehre vom Körperbau und Charakter. (Kretschmer's theory of physique and character.) *Z. Menschenk.*, 1935, 10, 215-229.—The writer gives a detailed statement of Kretschmer's theory of constitution and discusses its psychological presuppositions. He accepts the results of actual investigations, but criticizes Kretschmer's natural-scientific and mechanistic theories.—*J. Deussen* (Markkleeberg).

2852. **Horney, K.** Personality changes in female adolescents. *Amer. J. Orthopsychiat.*, 1935, 5, 19-26.—Analyses of adult women indicate that although

the determining conflicts arise in early childhood, the changes of personality coincide approximately with the onset of menstruation. Four types appear: (1) The girl becomes absorbed in sublimated activities with aversion for the erotic sphere; (2) the girl becomes absorbed in the erotic sphere and loses interest in work; (3) the girl becomes emotionally "detached" and loses her energy; and (4) the girl develops homosexual tendencies. Hostility is common to all and appears in dreams and fantasy. The behavior is an expression of the compromise between hostility and fear and guilt. This compromise is necessitated by a vicious circle: jealousy and rivalry toward mother or sister (arising from premature sex consciousness, early intimidations, marital conflicts between parents, rejection by mother, etc.)—hostile impulses lived out in fantasies—guilt and fear of punishment—defensive hostility—reinforced fear and guilt. Prophylaxis is needed before puberty. Children should be educated in courage, not filled with fears.—*J. McV. Hunt* (Worcester State Hospital).

2853. Horsch, A. C., & Davis, R. A. Topical summaries of current literature: mental hygiene and personality tests. *Amer. J. Sociol.*, 1935, 40, 646-658.—A review of tests reported in 29 psychological, sociological, and educational periodicals from their beginning to June, 1933. Bibliography of 81 references.—*R. H. Brown* (Clark).

2854. Jaensch, E. Die Kulturwende, betrachtet aus dem Gesichtswinkel der psychologisch-anthropologischen Forschung. (The turning point in civilization, considered from the point of view of research in psychological anthropology.) *Forsch. Fortschr. dtsch. Wiss.*, 1934, 10, 417-418.—In the idealistic worldview, the category of the "vital" was at a disadvantage, especially since the German intellect had the adolescent type of structure which protested, with instinctive assurance, against an inadequate sentiment. According to the writer's theory, this is expressed in the struggle of the purely masculine I-type against the lytic S-type.—*J. Deussen* (Markkleeberg).

2855. Just, G. Probleme der Persönlichkeit. (Problems of personality.) Berlin: Metzner, 1933. RM. 1.80.—(Not seen).

2856. Kienzle, R. Wege der Verinnerlichung und Lebensgestaltung. Eine Untersuchung zur Selbsterziehung und zur geistigen Zucht. (Ways toward intensification and life formation; an investigation of self-education and mental discipline.) *Z. Menschenkunde*, 1934, 10, 81-99.—The "engendering image" (taken in the sense of a symbol) provides an opportunity for the imagination to work out life development from the creative depth and totality of the self. Seven requirements for the consideration of this symbolic image are discussed.—*J. Deussen* (Markkleeberg).

2857. Kretschmer, E. Der Aufbau der Persönlichkeit in der Psychotherapie. (Personality as built up in psychotherapy.) *Z. ges. Neurol. Psychiat.*, 1934, 150, 729-739.—Personality is a schematic abstraction derived from typical reaction tendencies, groups of attitudes, certain strivings and life pur-

poses. Hereditary dispositions form a real basis for its development. Discrepancies between the real and the fictitious personality result in a disturbed adaptation to the environment and a favorable setting for the development of the neuroses. Constitutional changes are synonymous with certain psychical changes in the personality. Modern therapeutics must recognize the relation between the total personality and the totality of life. The individual's characteristic constitutional features and his personal idiom should be studied by the clinician.—*P. S. de Q. Cabot* (Harvard).

2858. Krout, M. H. Wish and behavior. *J. abnorm. soc. Psychol.*, 1934, 29, 253-268.—This study is based on the hypothesis that the duration and frequency of a given instance of behavior are of some importance. Thomas and Znaniecki's fourfold classification of wishes (new experience, security, recognition, response) was used as a basis for the motivational analysis of the subjects' behavior. Each subject kept a week's record of his activities and indicated opposite each item the motive involved. There is the assumption that the amount of time devoted to the expression of a certain wish indicates the extent to which the personality is dominated by that wish. The stabilizing or conserving security-motive led the list in the total time of the subjects, and the new-experience strivings were at the bottom. Response and recognition occupied an intermediate position, with response, expressed in the treatment of parents and associates, slightly higher than the search for recognition in impersonal contacts outside the community. It is indicated that the schedule, as made up, and the wish-type analysis, measure only the extent to which an individual manages to express his wishes. They do not measure the intensity.—*C. H. Johnson* (Boston Psychopathic Hospital).

2859. Latham, H. L. Social consciousness. *J. abnorm. soc. Psychol.*, 1934, 29, 287-292.—For the development of character, the determining factor is not the influence of environment, but the attitude toward environment. Primarily through revolt or dependence, through defiance or surrender, man develops his characteristic behavior, his character. The urge to adjust himself to the definite conditions of his environment is represented in the social consciousness of every man. Subjectively, social consciousness expresses itself in the conviction that one is bound to other men, that he belongs to them, that he does not stand apart. The capacity of man for cooperation can be viewed as a measure for the development of his social consciousness. Only he who is in a position to seek his happiness as a part of a whole in that which he himself can contribute as a payment to society will be able to rejoice in himself and in his life.—*C. H. Johnson* (Boston Psychopathic Hospital).

2860. Mayer, L. Der Wandertrieb. Eine Studie auf Grund vorhandener Literatur, eigener Beobachtungen und Untersuchungen. (The vagrancy drive. A study based on the existing literature, personal observations, and investigations.) Würzburg: Echter Verlag, 1934. Pp. 71. RM. 2.20.—After a review of

the psychiatric literature on the subject the author discusses the vagrancy drive as a general psychological problem. The drive of vagrancy of migrating tribes and of people in occupations requiring travelling is analyzed. The artistic, philosophical and other types of vagrants are described. The drive of vagrancy in adolescents is treated in detail; the influence of dispositional and environmental factors and of puberty for its genesis are investigated. The author discusses the drive of vagrancy in females, which is chiefly sexually colored, and brings it into relation to Marbe's theory of personality.—*L. Mayer* (Wurzburg).

2861. **Moragues, J.** *L'actitud gelosa.* (The jealous attitude.) *Rev. Psicol. Pedag.*, 1934, 2, 430-433.—This subject has been confused by taking lovers' jealousy as the paradigm and assuming that it denotes deep affection. In reality it is a demonstration of doubt and prudence. All jealous attitudes have the same origin and the same purpose—the feeling of having been dispossessed of a good and the determination to possess another. The clearest demonstration of this is the attitude of an older child toward the new baby. He welcomes the newcomer as such, and becomes jealous only when the mother enters the situation. The manifestations of jealousy are not always spiteful; they may be only envious. The child immediately tries to compensate by the acquisition of a new dominion, by imposing conditions on his elders, tenaciously clinging to his belongings, developing physical symptoms or a motherly attitude toward the baby; or he may seek to put himself on a level with it by reverting to infantile helplessness. If results are satisfactory, he develops these attitudes into neuroticism. If these attempts fail, he adopts the most curious of all the jealous attitudes, unconscious elimination of his rival.—*M. E. Morse* (Baltimore).

2862. **Müller-Freienfels, R.** *Vom Schauspieler im Menschen.* (Man as an actor.) *Z. Menschenk.*, 1934, 10, 99-110.—The writer here considers man not as Aristotle's *zoon politikon* nor as Bergson's *homo faber* nor as Linnaeus' *homo sapiens*, but as *homo histrio*, i.e., as a creature playing a role. The "role" of the individual embraces biological dispositions and psychological and sociological modifications. It represents a total form of behavior and is successful only when the entire ego is participating. To this extent, it cannot be chosen freely. When the consciousness of deception becomes involved, a character-role is replaced by a "mask." The writer gives examples (various chronological phases of life, sexual characteristics, professional roles) and discusses therapeutic applications. "The good psychiatrist must always be something of a stage-director."—*J. Deussen* (Markkleeberg).

2863. **Nier, F.** *Individuum und Rasse.* (Individual and race.) *Polit. Erz.*, 1933-34, 307-312.—Following L. Klages and L. F. Clauss, the writer distinguishes from each other the niveau and the style of personality. Style shows the quality and niveau the quantity of personal substance. Race manifests its influence upon the tendency and not upon the force

of the individual. Its effect is not upon the quantitatively determined realm of action and achievement but upon the qualitatively determined style of the individual.—*J. Deussen* (Markkleeberg).

2864. **Plattner, W.** *Metrische Körperbaudiagnostik.* (Metrical methods of diagnosing bodily structure.) *Z. ges. Neurol. Psychiat.*, 1934, 151, 374-404.—In spite of the efforts of the Marburg school in exercising certain statistical controls in the attempted diagnosis of constitutional build, the problem of a metrical determination of types is by no means solved. The author maintains that the indices employed by Wertheimer, Grote and Wigert permit a distinction between only leptosomes and euryosomes, while athletics are rather uniformly distributed among these two groups. One of the preliminary conditions in all metrical analyses of this kind is the limited knowledge and practical application of anthropometric measuring techniques. Several suggestions for the application of selected indices are given to overcome the difficulties encountered by other workers in the field.—*P. S. de Q. Cabot* (Harvard).

2865. **Rasmussen, A.** *Die Bedeutung sexueller Attentate auf Kinder unter 14 Jahren für die Entwicklung von Geisteskrankheiten und Charakteranomalien.* (The importance of sexual attacks on children less than 14 years of age for the development of mental diseases and character anomalies.) *Acta psychiat., Kbh.*, 1934, 9, 351-433.—The study concerns the effects of rape and other sexual crimes on girls up to the age of 16 years. In all of the cases, the crime had been certified by the court. Medical and social histories were available at the time of adulthood. 77 legal cases were examined, 22 of the offenders having attacked more than one child, the total number of children being 105. Among these, 18 were 14 years or older, the rest being less than 14. Extensive case histories could be secured for only 54 of the children, 9 of whom were above 14 years of age. The cases are classified in various ways and detailed accounts given of each case. In no case was evidence found of mental disorder or anomalous adjustment. The material was collected in Oslo, Norway.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

2866. **Rogge, H. C.** *Das dereistische Prinzip.* (The dereistic principle.) *Zbl. Psychother.*, 1934, 7, 362-371.—The psyche has two functions: the assertive (conscious) and the dereistic (autistic). The latter gives man his value and its powerful emotional coloring gives it driving force. The stronger the dereistic factor, the more productive the man. Inexplicably, consciousness exerts marked inhibition on it, and in full consciousness only so much comes through as accords with the assertive function. Too great inhibition may produce marked irritation, as seen in the neuroses. For most people this factor is limited to receptivity for new things produced by persons in whom the capacity is less inhibited. Rogge discusses briefly the workings of the dereistic factor in dreams, hypnotic and toxic states, the psychoses, science, art,

religion, war, the fantasies of children and primitives, and their remnants in sophisticated adults. The origin of this factor is obscure; it is not derived from the utilitarian principle. There is evidence of a special driving force (Schopenhauer's "will of nature") which would explain the developmental urge in man.—*M. E. Morse* (Baltimore).

2867. **Rosenzweig, S.** *Types of reaction to frustration.* *J. abnorm. soc. Psychol.*, 1934, 29, 298-300.—Extrapunitive, intropunitive, and impunitive are suggested as classifications of apperceptive types of conscious reaction to frustration. This classification applies not to individuals but to mechanisms. It describes types of reaction, not of reacting persons.—*C. H. Johnson* (Boston Psychopathic Hospital).

2868. **Schwarz, O.** *Sexualität und Persönlichkeit. Wesen und Formen ihrer Beziehungen.* (Sexuality and personality. The nature and form of their relationship.) Vienna, Leipzig, Berne: Weidmann, 1934. Pp. 224. RM. 10.50 (cardboard), 12.50 (linen).—The idea running through the book is that in the normal human life there is no isolated sexuality; the sex drive is built into the whole of the personality and it is possible to understand it only in relationship to the entirety of the development of the individual as a personality. Thus morality is imbedded in this fact, and it becomes possible to apply a scientific approach in the study of morality. As we regard marriage as the only life of wholesome sexuality, our attitude toward it should not be determined on domestic or religious bases, but on an understanding of biological laws. Central in the book is a discussion of the psychological, sociological, and historical bases of marriage, thus revealing that the whole problem of sexuality is a problem of the whole of life.—*O. Schwarz* (Vienna).

2869. **Smith, M.** *Personality dominance and leadership.* *Sociol. soc. Res.*, 1934, 19, 18-25.—The concept of dominance, as suggested by Child, is extended into the field of social psychology by a discussion of some of the principles of dominance in their relationship to the individual person and to the interrelationships of individuals.—*J. R. Hilgard* (Stanford).

2870. **Solomon, M.** *The struggle for equilibrium.* *J. abnorm. soc. Psychol.*, 1934, 29, 334-347.—The living human machine is in a state of moving dynamic unstable equilibrium. Forces and processes arising within the individual human machine are frequently in conflict with one another, and the total human machine is frequently in conflict with external forces and processes. There result states of relative disequilibrium, tension, stress, strain, friction. States of equilibrium are accompanied by feelings of satisfaction, ease, poise, pleasure and the like. States of disequilibrium are accompanied by feelings of annoyance, uneasiness, restlessness, insecurity and the like. Human beings are thus subject to states and feelings of excessive strain and tension, of varying intensity and duration, arising from several types of causes. In the struggles to gain release from excessive tension and maintain or regain equilibrium, individuals resort

to various types of activity, normal and abnormal. Some common ways and means of gaining equilibrium are mentioned.—*C. H. Johnson* (Boston Psychopathic Hospital).

2871. **Terman, L. M.** *The measurement of personality.* *Science*, 1934, 80, 605-608.—The author takes up the question of psychological measurement in general, criticizing measurement enthusiasts who lose sight of the dangers inherent in the reduction of psychological data by mathematical tools indispensable to the physical sciences. He then asks the question, "Is it really possible to measure personality in the strict sense of the word 'measure' as the physicist, for example, is accustomed to use the term?" The practical impossibility of such measurement in this field, as well as in the fields of intelligence and learning, hinging on the question of zero point and equality of units, is discussed. Using Thorndike's CAVD scale as an example, the absurdity of attempting to measure intelligence as a physicist measures distance or mass is pointed out. The approach to a study of personality, the development of personality tests, their validation and interpretation are discussed at some length. The clinical approach, Terman believes, is absolutely necessary for the interpretation of the personality as a whole. The thesis that the total personality is organismic and not additive is developed. Terman concludes that "there are no statistical short cuts to the understanding of human nature."—*P. Seckler* (Charity Organization Society, Hartford, Conn.).

2872. **Trout, D. M.** *Character through religious control.* (Child Welf. Pamphl. No. 42.) *Bull. St. Univ. Ia*, 1934, n. s. No. 765. Pp. 18.—Five questions relating religious growth to the development of character are discussed. They are: What is character? How does religion contribute to the development of character? Why devote religion to character development? What kind of religion will produce character of the best type? What methods should we use in applying this religious viewpoint among children?—*B. Wellman* (Iowa).

2873. **Vorwahl-Quakenbrück, H.** *Zur Psychologie der schöpferischen Persönlichkeit.* (Contribution to the psychology of the creative personality.) *Z. Menschenk.*, 1934, 10, 173-178.—Because it fails to get below the surface, associational psychology is unable to investigate the phenomenon of creativeness, which is metaphysical. The author gives examples of creative personalities who considered the power of the unconscious essential for their creativeness. The laws of creativeness will always be mysterious to us. However, subjective methods give us a higher degree of understanding than rationalistic methods.—*M. Kiessig* (Markkleeberg).

2874. **Watson, G., & Forlano, G.** *Prima facie validity in character tests.* *J. educ. Psychol.*, 1935, 26, 1-16.—The validity of an item in a character test depends upon whether the behavior or reputation denoted is generally accepted as representing good or bad character. 629 sample items from 31 character tests were rated on a 7-point scale by 150 graduate

students, mostly experienced educators, for value in judging good and bad character traits in 12-year-old children. With the median ratings as a criterion, the various original tests are rated for denotiveness and the best 25 items for detecting positive traits and the best 25 items for detecting negative traits are listed. The nature of these items indicates (1) that less emphasis should be given to measures of neurotic symptoms, inhibition, self-control, home background, and reports on academic deportment, (2) that more emphasis should be given to trustworthiness despite strong temptation, creative cooperation, popularity, and consideration for the feelings of others.—A. W. Melton (Yale).

2875. Wells, F. L. **Attitude measurement and "the Dunlap dilemma."** *Science*, 1935, 81, 227.—Results differing from Dunlap's have been obtained from a questionnaire submitted to 176 subjects of high intelligence. The subjects were asked to indicate their choice of the following two alternatives: (1) to be totally annihilated; (2) to relive their lives exactly as they have lived them, without profiting by any experience of their former life, and to face again the same alternatives. 30 subjects indicated a choice of total annihilation; whereas Dunlap's experience with the "dilemma" indicates a marked preponderance of "annihilation" choices. The author ascribes this difference in result to a possible difference in procedural detail.—R. J. Beitel, Jr. (Clark).

[See also abstracts 2629, 2746, 2765, 2817, 2821, 2903, 2904, 2956, 3041, 3045.]

#### SOCIAL FUNCTIONS OF THE INDIVIDUAL

2876. Atwood, B. S., & Shideler, E. H. **Social participation and juvenile delinquency.** *Sociol. soc. Res.*, 1934, 18, 436-441.—This exploratory research comparing 100 delinquent with 100 non-delinquent boys matched according to age, color, and nativity of parents, indicates that delinquents have a greater degree of social participation than do non-delinquents. With factors such as broken homes, town and city environment held constant the relationship still holds.—J. R. Hilgard (Stanford).

2877. Babbitt, J. M. **The measurement of public opinion.** *Sociol. soc. Res.*, 1934, 19, 55-60.—A test of public opinion on ten issues (e.g. Copeland bill, N.R.A. violation, growth of organized gangs) is constructed in terms of three specific alternate solutions to each issue. In addition provision is made for the subjects to indicate whether or not each of the issues is relatively important or unimportant. Graduates and undergraduates did not differ in any significant manner; opinion tended to favor strongly one or another of the alternates in each case; groups in general considered the issues which had been included as relatively important ones. This method is a feasible one of measuring public opinion, but wise construction of the test is difficult and should involve the collaboration of experts.—J. R. Hilgard (Stanford).

2878. Blake, M. B., & Dearborn, W. F. **The improvement of reading habits.** *J. higher Educ.*, 1935, 6, 83-88.—An exploratory study of the reading ability

of a freshman class contains many suggestions for use in such investigations. Verbal forms of ability tests and reading tests differentiate good and poor readers on speed of reading but only slightly on comprehension. The usual examinations and questionnaire materials added further evidence in individual cases. The results indicate "individual treatment" and the great importance of "encouragement of self-dependence in their own re-education."—R. A. Brotemarkle (Pennsylvania).

2879. Blum, K. R. **Die subjektivistisch-psychologischen Wertlehren von ihren Anfängen bis auf Gossen.** (The subjective-psychological value doctrines from their beginnings to Gossen.) Giessen: (Phil. Diss.), 1934. Pp. 62.—R. R. Willoughby (Clark).

2880. Bogardus, E. S. **Interviewing as a social process.** *Sociol. soc. Res.*, 1934, 19, 70-75.—Interviewing is discussed as a basic circular or spiral response, and as a derived cumulative response.—J. R. Hilgard (Stanford).

2881. Brown, W. O. **Race consciousness among South African natives.** *Amer. J. Sociol.*, 1935, 40, 569-581.—Among the natives of South Africa one would expect a vigorous variety of race consciousness, considering the subordinate status of the native, the exploitation of which he is the victim, and his three-to-one numerical preponderance over the white man. Actually this is not the case, owing, probably, to the disorganization of native life, native subservience, and the might of the white man. Certain symptoms of this collective sentiment, notably among urban natives, may be observed, the more important being: the shift in the mental attitude toward the white people, as evidenced in the decline of white prestige, and the growing sense of grievance among natives; the sporadic expressions of messianism, the outbreak of riots and strikes, and the rise of culture; and the embryonic religious, economic, and political movements among natives, suggesting a groping race consciousness. The inevitable penetration of the native into the white world will naturally intensify the racial struggle and ultimately give rise to a vigorous race consciousness among South African natives.—(Courtesy *Amer. J. Sociol.*)

2882. Carter, F. C. **Psychology and sacraments.** Milwaukee: Morehouse, 1935. Pp. 142. \$1.60.—R. R. Willoughby (Clark).

2883. Chapin, F. S. **Degrees of kinship intimacy.** *Sociol. soc. Res.*, 1934, 19, 117-125.—In measuring the degree of personal intimacy between pairs of brothers and pairs of sisters, two boy cousins, two girl cousins, boy-uncle and girl-aunt relationships, it was found that for each kinship relation women reported a higher degree of intimacy than men. The scale on degrees of family intimacy was developed at the University of Minnesota.—J. R. Hilgard (Stanford).

2884. Clemens, J. **Zur Psychologie des Exhibitionismus.** (The psychology of exhibitionism.) Bonn: Verein Studentenwohl, 1933. Pp. 29.—(Not seen).

2885. Cooke, D. H. Reaction of white and negro pupils in learning multiplication combinations. *Peabody Reflector*, 1935, 8, 11-12.—24 white and 29 negro 3rd-grade children (ages not given) in a city of about 200,000 population in which whites and negroes had separate schools were practiced under similar conditions on the multiplication of 64 digit-pairs ( $4 \times 5$ ,  $5 \times 4$ ,  $2 \times 9$ , etc.). Combinations involving 0 or 1 were omitted. Mean IQ as determined by Haggerty Intelligence Examination, Delta 2, was 82.3 for whites and 81.3 for negroes. After "considerable drill" in addition and subtraction, the children were drilled and tested by their respective teachers 30 minutes daily for (apparently) 49 days. The author concludes that: "In the final analysis it appears that there is very little difference in the reactions of white and negro pupils in learning the multiplication combinations." He also finds that the number of drill periods required to learn any combination increases with the magnitude of the combination, combinations containing 6 through 9 requiring "more than twice as much time, on the average," for learning as those containing 2 through 5.—*J. Peterson* (Peabody College).
2886. Coulter, C. W. Problems arising from industrialization of native life in Central Africa. *Amer. J. Sociol.*, 1935, 40, 582-592.—In Central Africa racial irritations are found in their simplest, most direct, and rawest forms. The question of land ownership has become an acute problem, with the setting aside of vast areas for white occupation, limitation of natives on reservations, and the holding of undesignated territories for future white occupation. Resentment has been expressed against the head tax levied upon every native male. The color bar, based on the European's fear of native competition, places vocational restrictions on the native and discriminates against him markedly in the matter of wages. It prevents rapid fusion of cultures and gives concrete expression to the idea of white-race superiority. Against this, native resentment is growing. European intolerance of native culture and traditional practices also makes for hostility. Only recently has any attempt been made by a few missionaries to blend the customs of the European and Bantu into an amalgamated system.—(Courtesy *Amer. J. Sociol.*)
2887. Douglas, P. H. The impact of recent social and economic changes upon the family. (Child Welf. Pamphl. No. 38.) *Bull. St. Univ. Ia.*, 1934, n. s. No. 761. Pp. 20.—Four sets of changes have been operating in the last few decades to alter distinctly many of the relationships within the family group. These are population changes, economic changes, social changes and the depression.—*B. Wellman* (Iowa).
2888. Douglas, P. H. What is the New Deal doing for the American family? (Child Welf. Pamphl. No. 39.) *Bull. St. Univ. Ia.*, 1934, n. s. No. 762. Pp. 20.—The government program as it affects family life is discussed under the following heads: conservation camps, abolition of child labor, relief appropriations, mortgage laws, housing, subsistence homesteads, retirement of submarginal land, cheaper electricity, protection of the aged, care of the unemployed and unemployment insurance.—*B. Wellman* (Iowa).
2889. Elkind, H. B., & Taylor, M. A rejoinder to the Gluecks' reply to the critique of *One Thousand Juvenile Delinquents*. *Amer. J. Orthopsychiat.*, 1935, 5, 66-69.—These writers point out that the chief errors in the book and reply of the Gluecks are: (1) failure to appreciate the difference between description and inference in statistical method, (2) over-valuation of the significance of the rate of 88.2% post-treatment recidivism found, and (3) lack of judicial caution in respect to the impressions of their writings upon others.—*J. McV. Hunt* (Worcester State Hospital).
2890. Feuchtwanger, E. Handschriftenuntersuchungen an Hirnverletzten. (Examination of the handwriting of brain-injury patients.) *Schweiz. Arch. Neurol. Psychiat.*, 1934, 34, 38ff.—The "graphodyn" is a very exact instrument for the diagnosis of brain injuries. Illustrated with graphological examples.—*P. Krieger* (Leipzig).
2891. Freund, H. Über inneres Stottern. (On internal stuttering.) *Z. ges. Neurol. Psychiat.*, 1934, 151, 591-598.—Internal stuttering is examined in the light of the following classification: as an independent form of illness, as a rest symptom and a stage of development, as a compulsive neurotic symptom, and as a direct symptom of external stuttering.—*P. Krieger* (Leipzig).
2892. Fuchs, E. Zur Psychoanalyse des Stotterns. (On the psychoanalysis of stuttering.) *Int. Z. Psychoanal.*, 1934, 20, 375-389.—Fenichel describes stuttering as a "pregenital conversion neurosis." A case is here reported in detail in which the numerous complications made treatment difficult. Progress was made, however, to a certain extent.—*H. D. Spoerl* (St. Johnsbury, Vt.).
2893. Galant, J. S. Ueber Sprechangst und Sprechscham. Zur Psychopathologie des Stotterns. (Speech anxiety and speech embarrassment. On the psychopathology of stuttering.) *Msschr. Ohrenheilk.*, 1934, 9, 1114.—*P. Klimpel* (Leipzig).
2894. Gray, H. Body-build in Illinois convicts with special reference to age. *J. crim. Law Criminol.*, 1934, 25, 554-575.—*L. Ackerson* (Institute for Juvenile Research).
2895. Greene, E. B. The relative legibility of linotyped and typewritten material. *J. appl. Psychol.*, 1934, 18, 697-704.—Linotyped samples are read a little faster than typewritten on 7-point material; the reverse was found on 10-point material. The differences were not statistically significant for a group of 685 college students using the Michigan Speed of Reading tests in a ten-minute test period.—*R. S. Schultz* (Psychological Corporation).
2896. Groves, E. R. Sex adjustment of college men and women. *J. educ. Sociol.*, 1935, 8, 353-360.—The sex adjustment of college students presents more acutely than elsewhere the problem of deliberate marriage postponement, with resulting restlessness and possible formation of false standards and ideals.

In addition these difficulties arise in a milieu surcharged with liberalism and a lack of long-established conventions. To cope with this situation, creation of a high morale among the students and an atmosphere conducive to socially desirable conduct is suggested, along with courses on marriage and the institution of a counseling service for the student.—*F. D. McTeer* (Wayne University).

2897. **Gutzmann, H.** Sprachstörungen und Erbllichkeit. (Speech disturbances and heredity.) *Med. Klinik*, 1934, 30, 256-258.—(Courtesy *Bibliogr. eugen.*)

2898. **Hartmann, M.** Beiträge zur Sexualtheorie. Mit besonderer Berücksichtigung neuer Ergebnisse von *F. Moewus*. (Contributions to the theory of sex. With particular attention to new results of *F. Moewus*.) *Forsch. Fortschr. dtsch. Wiss.*, 1934, 10, 337-338.—*J. Deussen* (Markkleeberg).

2899. **Hendrickson, G., & Zeligs, R.** Checking the social distance technique through personal interviews. *Sociol. soc. Res.*, 1934, 18, 420-430.—The results of fifteen personal interviews with sixth-grade children who had earlier answered the questions on the Racial Attitudes Indicator tended to establish the validity of that instrument. 87% of the answers to the questions repeated from the indicator were identical with those originally given.—*J. R. Hilgard* (Stanford).

2900. **Kirkpatrick, M. E.** Delinquency in Cleveland and Cuyahoga County during the depression period. *Amer. J. Orthopsychiat.*, 1935, 5, 43-48.—There has been a gradual decline in delinquency rate in Cuyahoga County since 1918 which has continued in spite of the depression. The problem of delinquency with boys is different from that with girls.—*J. McV. Hunt* (Worcester State Hospital).

2901. **Knopf, O.** Women on their own. Boston: Little, Brown, 1935. Pp. 306. \$2.75.—Unconditional equality between men and women, the only basis for human contentment, has by no means been reached. The depression has shown that the advances in the economic and social position of women are not stable, but may at any time be overthrown, as has occurred in Germany and Italy. Three crucial questions arise. Have individual women been made happier by the progress of women in general? Is there any woman's problem distinct and separate from the general problems of society? What direction should women take in their future efforts? These questions are discussed in an examination of the limitations of women—those externally imposed by life in a man's culture and those imposed upon themselves in acceptance of the role of inferiority. Marriage and a career can be combined if the periods of stress and adaptation necessary in both do not coincide, and if the personality of the marriage partner is favorable. As long as the belief remains that every woman should be first and foremost wife and mother, women are not free voluntarily to choose that as a career. There is great danger in the present tendency of women to create antagonism of men by isolating women as a group, set against men as a group. The

true goal is cooperation of the sexes.—*M. P. Montgomery* (Faribault, Minn.).

2902. **Kranz, H.** Die Kriminalität bei Zwillingen. (Criminality in twins.) *Z. induct. Abstamm.- u. Vererb. Lehre*, 1934, 67, 308-312.—(Courtesy *Bibliogr. eugen.*)

2903. **Kulp, D. H., & Davidson, H. H.** The application of the Spearman two-factor theory to social attitudes. *J. abnorm. soc. Psychol.*, 1934, 29, 269-275.—The purpose of this investigation was to determine statistically, by the application of the Spearman two-factor analysis, whether a general factor, or a central tendency, can be found to exist in social attitudes. The Test of International Attitudes was administered to a group of senior high school students. The presence of a central tendency in these five social attitude tests was evidenced by the size of the inter-correlations, the tetrad criterion analysis, and the correlation of each test with the general factor.—*C. H. Johnson* (Boston Psychopathic Hospital).

2904. **Leibl, M.** Der Stimmungsausdruck in der Handschrift. (Expression of mood in handwriting.) *Zbl. Graphol.*, 1935, 5, 237-252.—A transitory mood of excitement or inhibition must be distinguished from a constitutional affective disposition. Leibl gives illustrations from graphological rules for interpreting writing.—*J. Deussen* (Markkleeberg).

2905. **Leideritz, H.** Sympathie und Geruch. (Sympathy and smell.) *Bremervorde: Reinhard Meyer*, 1931/1933. Pp. 47. RM. 2.50.—*H. Leideritz* (Egenbittel).

2906. **Luserke, M.** Nordmeer- und Südsee-Wikingfahrten. (Viking trips on the North and South Seas.) *Z. Menschenk.*, 1934, 10, 145-157.—The trips which the Vikings and the South Sea islanders made on the open seas are, in view of the fact that they still adhered to a mythical philosophy, based on a typical racial quality. The South Sea islanders knew charts, which were not based on experience but on the concept of a changing world, the shape of which could not be definitely determined. The Vikings had no charts. The author considers their trips a manifestation of tremendous will power. To them the North Atlantic was not immeasurable, but a vast though limited expanse which had to be conquered. Their racial accomplishment has the significance of a sport event.—*M. Kieszig* (Leipzig).

2907. **Madisson, H.** Pärivusest kurikalduvusega perekonnas. (Heredity in a family of criminals.) *S. B. naturf. Ges. Jurjew*, 1928, 35, 339-371.—With French summary.—(Courtesy *Bibliogr. eugen.*)

2908. **Miller, C. B.** An experimental-phonetic investigation of whispered conversation, considered from the linguistic point of view. *Bochum-Langendreer: Heinrich Poppinghaus*, 1934. Pp. 77.—The author has examined certain sounds (*a, e, i, o, u*) of the Chinese language (Pekinese), to ascertain the significant elements of the whisper when using a tonal language. The procedure comprised the following tests: breath volume and laryngoscopic examination of various subjects, a comparison of whispered conver-

sation between Chinese and Duala (a tonal language of Africa), and examples of the whisper from two uneducated Chinese. The principal tests were given to three Chinese subjects, each from a different province of China, but all three employing the same tonal system. They included: knowledge of the forms of the tones, the tones assignable to a list of words, use of the whisper, range of voice (sonant), subject's impression of the pitch of his own whisper, of the intervals standing alone and in sentences with kymographic records of his performance, the observer's impression of vowel change, and the subject's reaction to whispered sentences in which the vowels appeared in each tone, the words standing in various grammatical categories. Conclusions: The added consumption of breath is of no significance. The subclassifications of the whisper are not substantiated. The subject's performance may vary from his intentions and also from his judgment of it. He is unable to determine the pitch of a whispered sound. He understands whispered conversation involving the four tones in different grammatical categories. He substitutes energy for a change of pitch in the sonant form. His understanding is based extensively on the context. The author makes suggestions for further investigations and improvements in technique.—*C. B. Miller* (Kaiser Wilhelm Institute, Berlin).

2909. Möbius, P. J. *Ueber die Veredelung des menschlichen Geschlechtes*. (On the ennobling of human sex.) Kreuzburg: Kreuzburger Nachrichten, 1933. Pp. 28.—(Not seen).

2910. Morris, A. *Criminology*. New York: Longmans, Green, 1934. Pp. 590. \$3.50.—In this general text on criminology an attempt is made to develop the subject matter logically by discussing the factors involved in the lives of criminals from their childhood until after their release from imprisonment. Interest is centered in problems of personality rather than in social institutions, and the major divisions of the book are concerned with criminals in their relation to society, the natural history of criminals, the prevention of criminal behavior, the apprehension and conviction of criminals, and the treatment of criminals.—*H. Cason* (Wisconsin).

2911. Murphy, P. *The role of the concept in reading ability*. *Proc. Ia Acad. Sci.*, 1933, 40, 175-179.—Two groups of ten readers each representing extremes of reading ability served as observers. Neither the generic nature nor the quantitative richness of an individual's concepts was shown to react in any way upon his ability to read and understand the printed page. There was a definite relationship between the latter capacity and organization, clarity and accuracy of concept.—*B. Wellman* (Iowa).

2912. Nietz, J. A. *The depression and the social status of occupations*. *Elem. Sch. J.*, 1935, 35, 454-461.—In 1928, 1932, and 1934 rankings in social status were made of 40 occupations and professions by a total of 1,622 high school seniors in various communities. Counts' study, made in 1925, provided comparable data. The present investigation revealed that in the 10-year period practically no changes

occurred among the highest 10 or the lowest 10 occupations. The banker retained rank 1; ranks 2-10 remained occupied by the "professions." Some changes, however, were noted in the middle 20 occupations, where differential levels of social status are not clearly marked.—*P. A. Witty* (Northwestern).

2913. Pfeil, H. *Psychologismus im englischen Empirismus*. (Psychologism in English empiricism.) Paderborn: Schöningh, 1934. Pp. 183.—*R. R. Willoughby* (Clark).

2914. Saller, K. *Kann man von "geborenen Verbrechern" sprechen?* (Can one speak of "born criminals?") *Umschau*, 1934, 44, 872-873.—The author distinguishes between criminality due to innate disposition and criminality due to the influence of environment. He utilizes records extending over a period of 100 years of the Hannover Prison in Hameln, and he strongly emphasizes the predominant influence of innate disposition for the genesis of criminality. Attention is called also to the increase of sex crime (from 1-2% to 10%) and of the intellectual type of crime against property in recent times.—*J. Deussen* (Markkleeberg).

2915. Sampson, L. W. *After careers of 424 paroled Wisconsin criminals*. *J. crim. Law Criminol.*, 1934, 25, 607-620.—A study was made of the success on parole of 149 penitentiary and 275 reformatory parolees according to the general method of the Gluecks, Vold, and Burgess. About 50% were successful on parole. The factors studied were marital status, urban versus rural residence, age of prisoner, education, skilled versus unskilled labor, use of alcohol, foreign versus native born, first offenders versus repeaters, major versus minor convictions, and others.—*L. Ackerson* (Institute for Juvenile Research).

2916. Schönfeld, W. *Graphologischer Beitrag zur Frage der herabgesetzten Zurechnungsfähigkeit Tuberkulöser*. (Graphological contribution to the problem of reduced responsibility of tubercular patients.) *Zbl. Graphol.*, 1934, 5, 193-196.—Tuberculosis predisposes toward compulsive acts, due to external and internal factors (mode of living and phenomena of intoxication). This is demonstrated by graphological examples. Usually the level of the patient's personality provides an adequate restraining force for the criminal outlet which might be found for the pent-up energies. If this level is low, the deterioration of character, caused by the disease, might reinforce whatever criminal tendency the individual already possesses.—*M. Kieszig* (Markkleeberg).

2917. Simpson, R. M. *Why prisons fail*. *J. crim. Law Criminol.*, 1934, 25, 601-606.—Several reasons are suggested for the failure of prisons to effect an improvement in criminals after their release. Fixed routine and army-like discipline do not cultivate desirable character traits, but breed indifference and soothe the "conscience." Punishment does not follow closely upon the commitment of a crime. Criminals feel "at home" in the company of fellow-criminals.—*L. Ackerson* (Institute for Juvenile Research).

2918. Sletto, R. F. **Delinquency and the only child.** *Sociol. soc. Res.*, 1934, 18, 519-529.—With 261 in each group aged 12-16, the use of a matched control group and a delinquent group indicated that there was no marked difference between the relative frequencies of only children. In general, delinquent boys in the only-child position did not differ greatly from other delinquent boys in the types of offense committed, although a larger proportion charged with being ungovernable supports the view that parental control over the only boy breaks down more often than is true for boys in other positions. A greater proportion of only-girl offenders was charged with theft; a much lower proportion was charged with sex offenses than for offenders from families of other sizes.—J. R. Hilgard (Stanford).

2919. Sowards, G. S. **A study of the war attitudes of college students.** *J. abnorm. soc. Psychol.*, 1934, 29, 328-333.—In order to study the influence of education upon the college student's attitude toward war, Thurstone's Attitude Toward War Test, Form A, was administered to freshmen and seniors in college and seniors in high school in the same community. While there was a consistent trend from high school seniors to college seniors toward a more pacifistic attitude, the differences between the average scores of the three groups were too small in every case to be statistically reliable. The average scores of all the various groups studied, with the exception of younger college senior girls, fell in the category designated as "mildly pacifistic." Of the three groups studied, the college seniors were the most homogeneous group. Education did not appear to modify war attitudes in any very marked fashion.—C. H. Johnson (Boston Psychopathic Hospital).

2920. Steggerda, M. **Racial psychometry.** *Eugen. News*, 1934, 19, 132-133.—An abstract of a paper presented by Steggerda at the meetings of the International Federation of Eugenic Organizations held in Zurich, Switzerland, July 18-21, 1934. Five difficulties in the measurement of mental differences in the races which field psychologists encounter are the factors of age, speed, language, culture and environment. The speaker felt that in race studies the IQ must be omitted, the speed factor eliminated, the tests given in pantomime, preferably in the native's home and by an examiner of the same race. Seven tests were suggested.—M. V. Louden (Pittsburgh).

2921. Stumpf, F. **Unterschiedliche Fortpflanzung bei Verbrechern.** (Differential propagation in criminals.) *Z. indukt. Abstamm.- u. Vererb. Lehre*, 1934, 67, 313-316.—(Courtesy *Bibliogr. eugen.*)

2922. Sullenger, T. E. **Economic status as a factor in juvenile delinquency.** *J. juven. Res.*, 1934, 18, 233-245.—The author cites a number of studies which show that poverty and delinquency are associated, though the nature of the association is not clear. He also describes the results of his own analysis of the cases of 500 delinquents brought before the courts in Omaha during a six-year period. 25% of the families of these delinquents were registered for having received some kind of aid from public and private

relief agencies. These registrations tended to occur near or just prior to the time when the behavior difficulties of the children brought them into the court. The fathers of the delinquents in 46% of the cases appeared to be shiftless. The families tended to be below par in physical health. While not committing himself to any one interpretation of these findings, the author describes such evidence as causes Healy to believe that not poverty as such but defective family relationships and immorality in the home are responsible for delinquency.—H. L. Koch (Chicago).

2923. Sutherland, E. H. **Principles of criminology.** Philadelphia: Lippincott, 1934. Pp. 611. \$3.50.—The general thesis of this completely revised edition of an earlier book is "that crime is a response to the general culture which has been developing during the last two centuries. The local agencies which were effective in social control when interaction was confined largely to local communities have disintegrated and, even where they are best preserved, are relatively ineffective in controlling the behavior in the wider areas to which interaction has extended. The law which is designed to secure control within these wider areas of interaction has been relatively futile in reducing crime rates, regardless of methods of enforcement and of treatment, because it has not been supported by feelings of social solidarity in these wider areas. This situation calls for social inventions and for social organization based on a more complete knowledge of the processes by which criminality develops." Among the subjects treated are the following: crime in relation to race, nationality, culture areas, the home and family, the government, and politics; the police systems; the juvenile courts; punishment and probation; prison systems; and prevention of crime.—A. B. Hunter (Clark).

2924. Tenwolde, H. **More on sex differences in handwriting.** *J. appl. Psychol.*, 1934, 18, 705-710.—No significant sex differences were found between quality of penmanship based on the Thorndike Handwriting Scale in the fourth to eighth grade. Teachers' judgments of 40 penmanship samples showed 63% correct sex identification.—R. S. Schultz (Psychological Corporation).

2925. Thompson, D. M. **On the detection of emphasis in spoken sentences by means of visual, tactual, and visual-tactual cues.** *J. gen. Psychol.*, 1934, 11, 160-172.—An investigation was made of the accuracy with which emphasis in a sentence can be localized by means of visual stimulation alone, tactual stimulation alone, and by simultaneous visual-tactual stimulation. Hearing S's were employed in a situation in which hearing was eliminated. The means of percentage of correct judgments increased from  $63.6 \pm 14.0$  in the visual situation, to  $68.6 \pm 16.5$  in the tactual situation, and  $84.4 \pm 13.4$  in the visual-tactual situation.—H. Cason (Wisconsin).

2926. Thurlow, M. B. **A study of selected factors in family life as described in life history material.** *Soc. Forces*, 1934, 12, 562-569.—Autobiographies of 200 white college students were investigated in an

attempt to establish criteria for a successful family.—  
(Courtesy *Bibliogr. eugen.*)

2927. Tinker, M. A. Cautions concerning illumination intensities used for reading. *Amer. J. Optom.*, 1935, 12, 43-51.—"There is no valid evidence in the literature to support the suggestion that the normal eye needs from 25 to several hundred foot-candles of artificial illumination for easy and efficient reading of legible print. Furthermore, analysis of the data on preferred intensities indicates that the eye selects a relatively low intensity for comfortable reading when the eye is adapted to the brightness usually found in artificial lighting. The intensity of light permissible is directly dependent upon the uniformity of diffusion present. Any increase of illumination intensity which increases glare is unhygienic and leads to eye-strain. For all but abnormal eyes and the reading of illegible print, 10 to 15 foot-candles furnish an ample margin of safety in brightness of illumination. Where the distribution of light is poor, as it is in many situations, lower intensities are more hygienic."—R. J. Beitel, Jr. (Clark).

2928. Tirala, L. G. Rassentypen und musikalische Begabung. (Racial types and musical talent.) *Rasse*, 1934, 1, 322-330.—A reply to Eichenauer's work on race and musical talent. The author distinguishes especially between the characteristics of Dinaric and Asiatic musical talent (Richard Wagner) as contrasted to Old-Germanic music. The latter displays a striving toward the majestic, the tri-tone, the major scale, and polyphony.—P. Krieger (Leipzig).

2929. Tittel, K. Untersuchungen über Schreibgeschwindigkeit, ein Beitrag zur experimentellen Graphologie. (Studies on speed of writing, a contribution to experimental graphology.) *Neue psychol. Stud.*, 1934, 11, No. 1. Pp. 54. RM. 3.50.—This paper is divided into three parts: (1) Measurement of normal and maximal objective speed, when the subject writes freely or to dictation. Motion pictures of the writing hand are evaluated both quantitatively and qualitatively. (2) Discussion of the characteristics which reveal the writing speed in a written text. Discussion of Saudek's views on the subject. (3) Structural factors of the speed of writing. The principal conditions on which the speed of writing depends.—K. Tittel (Dresden).

2930. Van der Hoop, J. H. Sexualität, Moral und Lebensanschauung. (Sexuality, morality and a philosophy of life.) *Zbl. Psychother.*, 1934, 7, 329-340.—The author's argument is as follows: There are three attitudes on the relationship of sexuality and psychic disturbances to morality: the non-committal (Freud); the social (Adler); and the spiritual. The danger of Adler's theory is that the prevailing ideal of a society is assumed to be right. In sexual morality especially this would retard new insights. The third view brings up two opposing philosophies of spiritual orientation. According to the first, spiritual insight develops from experience. According to the second, that of totality or creative subjectivity (Plato and Jung), it is derived from the ideal nature of man. The first view regards

sexuality as a special field, to be managed by rule; the second, as a creative spiritual ideal or totality. In psychotherapy exclusion of moral values leads to uncertainty and pedantic dependence on technique. The transformation of the super-ego, a process from which the analyst can never exclude himself, offers an opportunity for the development of moral values. From the biological-sociological standpoint moral compulsion lies in conformity to a certain group; morality is a changing by-product. According to creative totality moral attitudes reveal man's growing structure, and insofar as this is similar, they are binding on all.—M. E. Morse (Baltimore).

2931. Viernstein, T. Kriminalität und erbliche Anlagen. (Criminality and inherited tendency.) *Z. ärztl. Fortb.*, 1934, 31, 232-238.—(Courtesy *Bibliogr. eugen.*)

2932. Wagner, L. Ein wenig beachtetes Zeichen für Teigigkeit. (A neglected sign of satisfaction.) *Forsch. Fortschr. d. Wiss.*, 1934, 10, 253-261.—The writer distinguishes between "general joy in the senses" and "pleasurable sensuousness." Both character-traits show the graphological trait of satisfaction. In the first case, a broad pen is used to produce a writing which possesses sensuous joy; in the second, an oblique position of the pen leads to a sharp forward edge but an irregular backward boundary of the line of writing. This difference may be made out easily with a magnifying glass.—J. Deussen (Markkleeberg).

2933. Wagner, L. Der Unterschied männlichen und weiblichen Selbstgefühls in der Handschrift. (The difference between masculine and feminine self-feeling in handwriting.) *Zbl. Graphol.*, 1934, 5, 129-143.—The author finds in the handwriting of women a tendency to avoid extremes, in that of men a tendency toward extremes. This seems to point to a desire to expand in men, to resignation in women, constituting the difference between masculine and feminine self-feeling. Samples of handwriting are appended.—J. Deussen (Markkleeberg).

2934. Wagner, L. Kriterien problematischen Selbstgefühls in der Handschrift. (Criteria of problematic self-feeling in handwriting.) *Zbl. Graphol.*, 1934, 5, 179-193.—The author proposes, on the basis of examples, formal criteria (slant, pressure, symbolic elements, exaggerations), substantial criteria (slender, awkward, forced shapes) and special criteria.—M. Kiessig (Markkleeberg).

2935. Wallas, G. Social judgment. New York: Harcourt, Brace, 1935. Pp. 175.—The last writing completed by the author before his death. He discusses the part played by thought and emotion in the process of arriving at responsible decision. He is concerned with the "nature, history, and possible improvement of the judgment process, and its relation to the processes of scientific method and religious intuition."—D. Shakow (Worcester State Hospital).

2936. Weatherford, W. D., & Johnson, C. S. Race relations: adjustment of whites and negroes in the United States. New York: Heath, 1934. Pp. x +

590.—The general problem of race relations is discussed under three chief headings: (1) the philosophy of race relations, (2) American negro slavery, and (3) the present status of the negro race relations. Part I consists of a statement of theories of race, a brief consideration of negro culture, and a discussion of racial antagonisms and principles of race adjustment. Part II, which is much longer, treats in detail the various aspects of slavery as the historical background for the general problem of race relations. Part III is a discussion of present-day problems. The status of the negro is discussed from the point of view of his economic relations with the white group, his health, home life, civil and political rank, literature and cultural development. In addition the relevant problems of changing attitudes of both whites and negroes are considered along with programs looking toward the resolution of the problem of race relations.—*J. R. Smith* (Clark).

2937. Weekes, B. E. *Literature and the child*. Newark, N. J.: Silver, Burdett, 1935. Pp. 461. \$2.16.—A guide book for parents and teachers in the elementary school, telling how to direct children's reading and how to develop in them an appreciation of literature.—*R. R. Willoughby* (Clark).

2938. Wheeler, L. R. *A study of the remote mountain people of the Tennessee valley*. *J. Tenn. Acad. Sci.*, 1935, 9, 33-36.—This paper summarizes briefly test results previously published by the author, and points out the development in the lives of these mountain people in the last 25 years. It also sets some standards with which to compare future progress. Mountain children have about normal mental capacity at six years of age, but the IQ decreases with age due to lack of normal stimulation. Musically (Seashore's tests) they "appear fairly normal"; they are also normal in physical status. In 25 years families have changed from a mean of about 10, living in a one-room log cabin, dirt floor, ladder to a loft, etc., to a mean of 7.62, living in a two-story five-room weather-boarded, unpainted frame house. The average person "does not think it wrong to dance, attend play-parties, or go to the movies." Other improvements in economic status, social activities, status of the woman, house furnishings, transportation, etc., are indicated. "There has been no marked change in the religious life."—*J. Peterson* (Peabody College).

2939. Whetten, N. L. *Social reorganization in rural New England*. *Sociol. soc. Res.*, 1934, 19, 141-154.—Colonial stock contributed an organic community organization in which racial and cultural homogeneity was one of the major unifying factors for all phases of social life. The newer immigrants who came toward the end of the nineteenth century weakened the solidarity because of religious differences and their different social and political customs. In addition urban influences have increased a dissimilarity of interests and have promoted functional groupings.—*J. R. Hilgard* (Stanford).

2940. Winston, S. *Cultural participation and the negro*. *Amer. J. Sociol.*, 1935, 40, 593-601.—In order to present quantitatively the theory of cultural

participation, data are utilized on the relative participation of the negro in the economic and educational fields. Economic data indicate a group becoming less rural; industrial and business fields are functioning more and more as channels of participation; the large proportion of negroes are still on the lower rungs of the occupational ladder; the proportion of professional men and women is increasing. In both quantity and quality of education there is a definite lag behind the white group, but this lag is decreasing notably through reduction of illiteracy, increased attendance in elementary schools, and growth of high schools and colleges. The death rates and morbidity figures indicate also a lesser degree of cultural participation of negroes. There is a definite trend toward increased participation in the discoveries of science, which in turn affect ability to prevent, withstand, and counteract disease.—(Courtesy *Amer. J. Sociol.*)

2941. Wittlich, B. *Zur Untersuchung von Maschinenschriften*. (Analysis of machine writing.) *Zbl. Graphol.*, 1934, 5, 121-125.—While the identification of handwriting often is a matter of probability rather than certainty, the author demonstrates that machine writing can always be identified with absolute certainty.—*J. Deussen* (Markkleeberg).

[See also abstracts 2575, 2613, 2631, 2680, 2754, 2767, 2772, 2778, 2782, 2808, 2816, 2834, 2845, 2859, 2872, 2954, 2957, 2962, 2964, 2979, 3015, 3035, 3040, 3047, 3053.]

## INDUSTRIAL AND PERSONNEL PROBLEMS

2942. [Anon.] *VIII congrés internacional de psicotècnia*. *Rev. Psicol. Pedag.*, 1934, 2, 443-444.—The Eighth International Congress of Psychotechnics was held at Prague, September 10-15, 1934. The chief subjects of discussion were: the practical importance of psychotechnics; the unification of psychological terminology (Claparède, Piéron, Ponzio, and Rupp); the centralization of tests (Piéron); statistics and personality analysis (Spearman); the child's character in relation to professional orientation (Wallon); the selection and orientation of pupils in elementary, secondary and higher education; the problems of professional orientation; the psychopathology of occupations; and psychotechnical investigations in industry, transportation, and administration. Of special interest were the papers on the selection of medical students and aviators, by Biegelson and Azoy respectively.—*M. E. Morse* (Baltimore).

2943. Kirihaara, H. *The influence of factory work on psycho-physical functions*. *Rep. Inst. Sci. Labour, Kurashiki*, 1931, No. 2. Pp. 9.—Reaction times of young women in a weaving industry. Auditory simple reaction is shorter, if anything, afterward than before, and shows no difference as between days of work and rest. Simple visual reaction time is lengthened after work and on work days. Visual choice reaction follows the course of the simple visual. Night work lengthens reaction time. Reaction is slowed on the first day of the week, then back to about normal on the second and third, and then decreases again from

the fourth on. It is suggested that reaction time might be used as a measure of industrial fatigue.—*H. E. Burt* (Ohio State).

2944. *Kitson, H. D.* Occupations in epitome: the occupation of vocational counselor. *Occupations*, 1935, 13, 515-519.—Abstract of the literature on the occupation of vocational counselor.—*R. H. Brown* (Clark).

2945. *Likert, R.* What psychology can contribute to industrial stability. *Mech. Engng, N. Y.*, 1934, 56, 203-206.—This paper discusses some of the factors, such as motives and attitudes, which govern the workers' reactions. Their importance for management in an industrial organization is shown.—*H. A. Copeland* (Cincinnati Employment Center).

2946. *Lucas, D. B.* The optimum length of advertising. *J. appl. Psychol.*, 1934, 18, 665-674.—Advertising headlines from the Saturday Evening Post were presented to 98 men and 23 women college students by a method of immediate recall and recognition after reading slips of paper drawn from envelopes and by recall after tachistoscope exposure (1.25 seconds). A correlation of  $-.85 \pm .03$  was obtained between the number of thought units and percent recall in the tachistoscopic method. The number of words and percent recall in this method correlate  $-.80 \pm .04$ . The other two methods with no controlled time limit reveal no significant correlations.—*R. S. Schultz* (Psychological Corporation).

2947. *Prosser, C. A., & Prosser, W. L.* Occupations in epitome: the occupation of plumber. *Occupations*, 1935, 13, 519-524.—Abstract of the literature on the occupation of plumber.—*R. H. Brown* (Clark).

2948. *Remmers, H. H.* Measuring attitudes toward vocations. *Bull. Purdue Univ. Stud. higher Educ.*, 1934, 35, No. 4, 77-83.—Data secured by the use of a generalized attitude scale for occupations are presented and analyzed for tendencies and patterns. The data include measured attitudes toward the ministry, home-making, high school teaching, and engineering. 429 college students were included in the sampling. The following conclusions are indicated: (1) "Definite attitude patterns exist in that attitudes toward high school teaching and the ministry tend to vary together." (2) "For the group investigated, average attitudes varied greatly from one school in the University to another." (3) "High school teaching as a profession stands appreciably higher in the estimation of the type of students investigated here than does the ministry." (4) "A definite sex difference in attitude toward the ministry appeared." (5) "There is some evidence that students tend to be definitely for or definitely against the ministry. This is also true for high school teaching."—*O. C. Trimble* (Purdue).

2949. *Squier, C. W.* Measuring our capabilities: human engineering laboratories are striving to find the work to which men are best suited and in which they have the greatest chance for success. *Mech. Engng, N. Y.*, 1933, 55, 603-607.—"In the various research studies and analyses made in the Human

Engineering Laboratories [at Stevens Institute of Technology] seven distinct aptitudes have been isolated and can be measured, two others can be approximated, and some evidence of the existence of six additional ones has been obtained. The seven aptitudes or mental elements which can be measured most accurately are: Personality, Tonal Memory, Engineering Aptitude, Accounting Aptitude, Tweezer Dexterity, Finger Dexterity, Creative Imagination. Two elements which can be approximated are Inductive Reasoning and Visual Memory." A discursive summary, without data, is given of the results obtained by giving some tests to various groups.—*H. A. Copeland* (Cincinnati Employment Center).

[See also abstracts 2548, 2961, 3018.]

#### EDUCATIONAL PSYCHOLOGY

2950. [Anon.] VI congrés d'educació moral. *Rev. Psicol. Pedag.*, 1934, 2, 442-443.—This meeting, attended by representatives from more than 20 countries, was held at Cracow, September 11-16, 1934. The central idea of the congress was that the child has an innate moral feeling, common to all humanity, which later differentiates in accordance with race, nation and custom; and that consequently, in spite of this diversity, there is a universally valid morality. The particular theme for discussion was: the moral forces common to humanity, their origins, and their development in education. This was studied from the standpoints of psychology, pedagogy, sociology, and philosophy. In these relationships were discussed: ethics and work; children's literature; coeducation; and international cooperation in the service of youth.—*M. E. Morse* (Baltimore).

2951. *Bagley, W. C.* American achievement tests as applied in other English-speaking countries. *Sch. & Soc.*, 1935, 41, 338.—The author received the following reports as a result of a request to foreign educators for the returns from American achievement tests given to English-speaking children in other lands. A survey of the schools in British Columbia showed that a majority of the children surpassed the norms on a certain American elementary school subject achievement test. K. S. Cunningham indicates that specific Australian groups average higher on a certain spelling test than the American norms. A survey involving all the 11-year-old children in the County of Fife, Scotland, revealed the Scottish children superior to the American in every one of the Form 2 tests in reading, arithmetic computation, arithmetic reasoning, language usage, and spelling published by the Public School Publishing Company. The greater achievement of the Fife child is explained in part in terms of his superior intelligence and earlier entrance into school. In arithmetic computation the Scottish average is 19 months above the American.—*H. L. Koch* (Chicago).

2952. *Berger, F.* Das Sinnbildliche als Medium völkischer Bildung und Erziehung nach Fr. Fröbel. (The concrete as a medium of national folk culture and education.) *Z. pädag. Psychol.*, 1934, 35, 129-139; 206-216; 377-399.—Attention is called to the

emphasis Fröbel gives in his educational writings to organic and concrete experiences. Social institutions and creations, common racial inheritance, language, customs and religion are concrete aims and spiritual guides in all relations, even those between mother and child, which have as yet remained undeveloped. The folk community spirit is the most fundamental of all educational forces.—*P. Krieger* (Leipzig).

2953. Boynton, P. L., Dugger, H., & Turner, M. **The emotional stability of teachers and pupils.** *J. juven. Res.*, 1934, 18, 223-232.—To discover whether there is any relation between teacher and pupil stability, 73 fifth- and sixth-grade teachers in the Nashville City schools and 1095 of their students (585 boys and 510 girls) selected at random were persuaded to fill out the Woodworth-Mathews personal data sheet, as well as to answer the 25 questions of the Willoughby modification of the Thurstone personal inventory. All papers were to be returned unsigned. The pupils of the teachers who, when judged as to emotional stability in terms of the question series criteria, had the best mental health (fell in the highest quartile) scored higher on the average in stability than did the pupils of the teachers who were the most unstable.—*H. L. Koch* (Chicago).

2954. Bykowski, L. J. **Untersuchung des intellektuellen Niveaus der arischen und jüdischen Schüler in den polnischen Gymnasien.** (Investigations of the intellectual level of Aryan and Jewish pupils in Polish secondary schools.) *Z. pädag. Psychol.*, 1935, 36, 38-40.—The testing results (modified Rossolimo's procedure) are based on a total of 179 schools, 426 classes, and 10,211 pupils. Intellectual level correlates highly (.93) with size of town. This correlation is reduced as the proportion of Jewish population increases. On an average, Aryan pupils in upper classes have a better intellectual profile than Jewish pupils of the same class and age. Polish pupils surpass the Jewish in observation, recall (*Merkfähigkeit*), and imagination (*Phantasie*); little difference is found in word memory. In lower classes the Jewish pupils usually surpass the Polish. The proportion of Aryan pupils with an index of 80 and above is 6.8%, of Jewish 2.1%; with an index of 90 and above the percentages are .45 and .11, respectively. In general, the writer finds that a larger population of Jewish pupils in a class or school is associated with a lower intellectual level of the Aryan pupils. This is especially true in cities with a large percentage of Jewish population. In explanation of this fact the hypothesis is advanced that Aryans and Jews are of different psychic make-up, belonging to different cultures, distinct by different ideals, conceptions, and norms. Without evaluating as to which one is better, the assertion is made that they are different and interfere with each other; that it is probable that the Jews have a negative and deteriorating effect upon the Polish Aryan pupils.—*W. Reitz* (Chicago).

2955. Byrns, R., & Henmon, V. A. C. **Entrance requirements and college success.** *Sch. & Soc.*, 1935, 41, 101-104.—The high school and college records as well as the psychological test ratings of 687 University

of Wisconsin seniors are the data on which the study is based. The correlation between psychological test rating and the number of credits in the various disciplines earned in high school is virtually zero, except in the case of foreign languages, where the  $r$  is .20. When ability differences are ruled out, furthermore, no dependable relationship is noted between college achievement in a discipline and the number of semester hours of high school work done in any field, save in the case of the dull students, where there seems to be a small but consistently positive correlation between the amount of language work done in the secondary school and average grade in English earned in college. The methods employed for keeping ability differences constant were (1) partial correlation, and (2) the computation of correlation coefficients between the variables under scrutiny for each ability decile of the population.—*H. L. Koch* (Chicago).

2956. Castiello, J. **Geistesformung.** (Mental formation.) Berlin: F. Dümmler, 1934. Pp. 142. RM. 5.80.—The writer investigates mental deportment according to the various school types and the formal value of instruction in work, which is found to increase accomplishment in school, especially in pupils who have previously been weak-willed. Such instruction does not, however, improve attention or sense of order. There is a brief discussion of the advantage of instruction in Latin. The writer believes that formal education influences mental functions, either generalizing or increasing their capacity or both. Through "transfer of training" a tendency or form (in the Aristotelian sense) is impressed upon the mind. In conclusion, the writer evaluates the educational value of human personality.—*A. Römer* (Leipzig).

2957. Coers, W. C. **Comparative achievement of white and Mexican junior high school pupils.** *Peabody J. Educ.*, 1935, 12, 157-162.—A comparison was made in Texas of 66, 18, and 13 white children in the 6th, 7th, and 8th grades, respectively, with equal numbers of Mexican children likewise distributed in these three grades, on the basis of scores made on the Kuhlmann-Anderson group intelligence test and the Public School Achievement Test, Battery A. While the character of samplings and the ages are not definitely indicated, 80% of the American whites in the 6th grade exceeded the Mexicans in this grade on the intelligence test scores, and 70% on the achievement scores. In the 7th and 8th grades the Mexicans likewise scored relatively higher in achievement than in intelligence scores, as compared with the whites. Mexican children more nearly approached the whites in arithmetic, and next in spelling, than in other subject-matter lines. In the 8th grade the group differences were less significant than in the 6th. Correlations between intelligence and achievement scores were higher in the case of the Mexican than in that of the American white children, and the lower the intelligence scores in both groups the higher relatively were the achievement scores.—*J. Peterson* (Peabody College).

2958. Cohen, H. L., & Coryell, N. G. [Eds.] **Educating superior students.** New York: American

Book Co., 1935. Pp. 352. \$2.00.—Based upon investigations carried on by means of questionnaires circulated in the 46 senior high schools of New York City, supplemented by interviews and surveys, the book is a record of activities actually done and being done to exercise the talents of superior students. Its fourteen sections cover art, biology, economics, English studies, health education, history and civics, home economics, Latin, mathematics, modern foreign languages, music, physical science, speech, and stenography. Case studies of gifted students who have profited by this special attention are given.—*A. B. Hunter* (Clark).

2959. **Copeland, H. A.** A note on effect of teaching on reliability of an achievement test. *J. appl. Psychol.*, 1934, 18, 711-716.—Data on a test of "minimal statistics" knowledge, a multiple-choice test on teaching procedures, and a judgment test of applied teaching information, are presented to show that the reliability coefficient of an achievement test tends to decrease after "maximal learning" has taken place. Statistical methods for computing the reliability of an achievement test are briefly discussed.—*R. S. Schultz* (Psychological Corporation).

2960. **Corey, S. M.** The effect of motivation upon the relationship between achievement and intelligence. *Sch. & Soc.*, 1935, 41, 256-257.—For a group of 104 college students correlations were computed between Army Alpha scores and grades made, respectively, on (1) a final examination with respect to the inevitability of which the students had been warned, and (2) on quizzes sprung without notice. In the former case the correlation was  $.52 \pm .05$ ; in the latter,  $.055 \pm .066$ . The author interprets these findings as evidence that motivation increases the relationship between achievement and capacity. A close relation between these variables among a group of students can be taken as an indication of good teaching.—*H. L. Koch* (Chicago).

2961. **Davis, E. W.** Aids to occupational research: a guide to source materials. *Occupations*, 1934, 13, 503-513.—A guide to source materials for vocational counselors, research workers, and other workers in closely allied fields. Principal sources of data are listed under the headings: bibliographies of the entire field; bibliographies of special sources; abstracts; book reviews; definitions and terminology; directories, lists of names and occupations; editorial comment; history; indexes and book lists; news notes; periodicals; professional organizations; research completed; researches under way; research suggestions; and statistics.—*R. H. Brown* (Clark).

2962. **Dexter, E. S.** Pitch discrimination and French accent on the high school levels. *J. appl. Psychol.*, 1934, 18, 717-720.—For a group of 615 high school girls an average correlation between general intelligence test scores and accent ratings in French was .592, and that between pitch discrimination (Seashore test) and accent rating was .639. Low intelligence accompanied by low pitch discrimination tends to result in failure in French. Good pitch discrimination with comparatively low intelligence may permit

reasonably successful ratings in French accent.—*R. S. Schultz* (Psychological Corporation).

2963. **Eckert, R. E.** Analyzing the superior college student. *Sch. & Soc.*, 1935, 41, 69-72.—The study compares in a number of respects the men who entered the Junior College of the University of Buffalo between 1926 and 1930 and who earned places in the highest and lowest quartiles, respectively, with reference to grade-point average. As contrasted with the inferior student, the superior spent less time in high school, elected more work in high school Latin and mathematics, exhibited a higher level of achievement in English literature and chemistry in the secondary school, rated much higher on Regents Examinations and higher, though less conspicuously so, in standing on the American Council on Education Psychological Examination and the Iowa High School Content Examination, reported himself more persistent in problem solving and less able to meet people, devoted more time to study, read more rapidly, was more interested in teaching as a vocation, attached more importance to community service as a reason for entering a vocation, took a less active part in athletics, and in his social and economic views was more liberal.—*H. L. Koch* (Chicago).

2964. **Edson, N. W.** Sex education as a community problem. *J. educ. Sociol.*, 1935, 8, 361-370.—Since "it is the task of sex education to help the individual so to direct his sex impulse as to give him the satisfactions of a rich expression of his own personality and at the same time to furnish outlets that do not bring him into serious conflicts with social standards," such education becomes, perforce, the joint responsibility of the home, the school, the church, the youth organizations, the welfare institutions, the various social agencies, and the industrial plants of the community. A brief outline presents the opportunity of each of these agencies to cooperate in the combined task of sex education.—*F. D. McTeer* (Wayne University).

2965. **Estalella, J.** La colonia d'estiu de l'Institut escola. (The summer colony of the Institute school.) *Rev. Psicol. Pedag.*, 1934, 2, 434-437.—This is a school of the progressive type conducted by the Psychotechnical Institute of the "Generalitat" of Barcelona. Estalella gives an illustrated account of the establishment of the mountain camp and the daily activities, which combined domestic routine, nature study, and acquaintance with the farmers' and shepherds' occupations. The contacts between the city children and the peasants were mutually helpful. The author considers coeducation one of the most valuable features of the school and camp.—*M. E. Morse* (Baltimore).

2966. **Finch, F. H., & Floyd, O. R.** The relation of chronological age to achievement in the study of French. *J. educ. Psychol.*, 1935, 26, 52-58.—A study of the relation between the age at which the study of French is begun and achievement on the American Council French Tests after 1, 2, or 3 years of study of French. The subjects were pupils in the University High School, University of Minnesota, and ranged in

age from 11 to 19 years. A correlation analysis of the interrelations of age, IQ, and French score revealed that consideration of age adds little to the accuracy of prediction of achievement in French grammar or vocabulary based on intelligence scores. "There is nothing . . . to suggest that the study of French be reserved to the senior high school or that seventh and eighth grade pupils . . . should be denied the opportunity to begin the study of French on grounds of immaturity."—A. W. Melton (Yale).

2967. Finch, F. H., & Nemzek, C. L. **Attendance and achievement in high school.** *Sch. & Soc.*, 1935, 41, 207-208.—The correlation, with intelligence partialled out, between days of attendance at school during a five-semester period and honor-point ratio was, for a group of 101 high-school boys,  $.131 \pm .066$ , and for a group of 114 high-school girls,  $.320 \pm .057$ . Similar correlations for a three-semester period were, for a group of 214 boys,  $.239 \pm .038$ , and for a group of 208 girls  $.390 \pm .040$ . It appears that the relation between regularity in school attendance and scholarship is low but positive, and that this relationship is greater with girls than with boys.—H. L. Koch (Chicago).

2968. Griffith, C. D. **An introduction to educational psychology.** New York: Farrar & Rinehart, 1935. Pp. xiv + 754. \$3.00.—In accordance with the genetic point of view from which this text was written the first major division of the volume, of which there are three, is concerned with "methods of promoting growth." In it are discussed characteristics of the neonate and the preschool child, the development of actions and attitudes, perceptual functions, attention and interest, emotionalized actions, problem-solving abilities, personality and character, and the problems of motivation. A second part devotes considerable space to original nature. Other chapters treat of learning theories, "engineering" the learning process, the problem of transfer of training, and the art of teaching. The third section deals with "conceptual and methodological tools of education." An especially elaborate set of footnotes and references are included, there being well over 1400 of the former, chiefly specific citations of other works, and a lengthy annotated bibliography at the conclusion of each of the twenty chapters.—F. A. Geldard (Virginia).

2969. Gruenberg, S. M. **Parents' problems in sex education.** *J. educ. Sociol.*, 1935, 8, 323-332.—"Parents educate children with respect to the meaning and place of sex in life both through imparting information and through upholding certain ideals and attitudes in daily conduct." The greatest obstacle to such processes of sex education is the necessity for some progressive reorientation on the part of the parents "who are themselves in need of overcoming old fears and inhibitions, and of reexamining life values and objectives."—F. D. McTeer (Wayne University).

2970. Haggerty, M. E. **The low visibility of educational issues.** *Sch. & Soc.*, 1935, 41, 273-283.—The author attacks the "Conclusions and Recom-

mendations of the Commission on the Social Sciences."—H. L. Koch (Chicago).

2971. Hawthorne, J. W. **The effect of improvement in reading ability on intelligence test scores.** *J. educ. Psychol.*, 1935, 26, 41-51.—A study to determine whether intelligence test scores are a function of reading ability. A total of 125 pupils (in 4 groups) in grades 5 to 12 who were retarded in reading ability were given the Terman Group Test of Mental Ability and a reading test (either the Thorndike-McCall, Monroe Silent Reading Test, or Gates Silent Reading Test) before and after 4 months of intensive remedial drill in reading. Although significant improvement in reading ability occurred in each group, the changes in intelligence scores were positive in only 3 of the 4 groups and no change was statistically significant.—A. W. Melton (Yale).

2972. Hirsch, G. **Die Erziehungsmächte Elternhaus, Schule und Hitlerjugend in der Entscheidung.** (The educational forces of home, school and Hitler-youth in decision.) *Z. pädag. Psychol.*, 1934, 35, 399-410.—An apology for the three educational forces that ought to work cooperatively in the new Germany.—P. Krieger (Leipzig).

2973. Kelly, E. M. **The improvement of reading in special classes for mentally retarded children.** *Train. Sch. Bull.*, 1935, 31, 186-191.—A comparison of the mental age (Stanford-Binet) and reading age (Metropolitan Group and Gray Paragraph Reading) of 1600 subnormal children made in June, 1933, showed that the reading level was below that expected for the MA level. Remedial work consisted in practice in exercises like those of the Metropolitan Test. The results are not presented, but the general trend is reported as decidedly upward. Additional experimentation being carried out is described.—J. M. Stalnaker (Chicago).

2974. Mann, P. B. **The development and use of educational motion pictures in New York City.** *Sch. & Soc.*, 1935, 41, 241-247.—H. L. Koch (Chicago).

2975. Merriam, W. B. **Functional testing in geography.** *Sch. & Soc.*, 1935, 41, 150-151.—The author describes a type of test which he calls a reaction test. The student is presented with a statement, usually taken from some article or bit of current writing, to which he is asked to give his reaction.—H. L. Koch (Chicago).

2976. Meyer, G. **An experimental study of the old and new types of examination: II. Methods of study.** *J. educ. Psychol.*, 1935, 26, 30-40.—In a previous study (*J. educ. Psychol.*, 1934, 25, 641-661) Meyer showed that the examination set had an effect on memory, and postulated that the effect was due to the different methods of study used in preparing for the different types of examination. The present analysis concerns the answers of the subjects to questions regarding their methods of study and an examination of their notebooks and notes which were used during study. In studying for essay-type examinations the predominant method was to make summaries and sample questions; in studying for true-false and multiple-choice tests the predominant

method was to take random notes and underline details in notebooks; in studying for completion tests the method was the same as for the T-F and M-C tests, but more effort was exerted. The differences in methods of study are held to explain the differences in test results previously reported.—A. W. Melton (Yale).

2977. Miner, J. B. Are the needs of the better students being met? *Kentucky Person. Bull.*, 1933, No. 13, 1-2.—"An examination of the scholastic records of students in relation to their tested intelligence suggests that the scholastic situation is better adapted to students of lower intellectual ability than to those of higher ability."—R. H. Brown (Clark).

2978. Monroe, W. S. Hazards in the measurement of achievement. *Sch. & Soc.*, 1935, 41, 48-52.—The author points out the danger in the practices of (1) rejecting a test merely because it is not objectively scorable, (2) interpreting a reliability or validity coefficient without giving due consideration to such conditioning variables as the homogeneity of the population tested, and (3) failing to recognize the fallibility of the criterion in terms of which test results are weighed.—H. L. Koch (Chicago).

2979. Moore, H. Training college freshmen to read. *J. appl. Psychol.*, 1934, 18, 631-634.—Total scores on standardized diagnostic reading tests do not reveal the significant reading difficulties of college freshmen. A special course was conducted with students in the lowest quartile of the Mount Holyoke Reading Test on how to study, including exercises on finding central meanings, increasing reading rate, building up and analyzing words, and comparing meanings of proverbs, combined with senior student advisor conferences. At the end of a six-week period retest on an alternate form of the Reading Test shows an improvement of from 4 to 150%.—R. S. Schultz (Psychological Corporation).

2980. Ojemann, R. H. The reading difficulty of parent education materials. *Proc. 1a Acad. Sci.*, 1933, 40, 159-170.—The reading difficulty of sixteen selections from materials written for parents was determined experimentally from data on 209 parents. Simple materials were found to be characterized by concreteness, easy vocabulary, simplified sentence structure as evidenced by a relatively large proportion of simple sentences, a small proportion of words in dependent clauses and a small number of prepositional phrases. An increase in the number of complex sentences or in the number of prepositional phrases increases difficulty even when vocabulary is held constant.—B. Wellman (Iowa).

2981. Peck, L. Teachers' reports of the problems of unadjusted school children. *J. educ. Psychol.*, 1935, 26, 123-138.—A study of what characteristics teachers considered most important in justifying the labelling of certain children as unadjusted. 175 teachers in the writer's classes handed in case studies of children whom they considered to be unadjusted. 53% of the 698 problems presented by the 175 pupils reported on could be classified as undesirable personality traits. This contradicts the earlier findings

of E. K. Wickman (*Children's Behavior and Teacher's Attitudes*) and S. R. Laycock (*Brit. J. educ. Psychol.*, 1934, 4, 11-29), since the latter found that undesirable personality traits were considered the least serious and disturbances of the school routine were considered the most serious. The data obtained by the author are analyzed intensively to show the relative importance of other types of problem behavior. Some suggestive differences between the sexes and between preadolescents and adolescents were obtained.—A. W. Melton (Yale).

2982. Peterson, H. A., Ellis, M., Toohill, N., & Kloess, P. Some measurements of the effects of reviews. *J. educ. Psychol.*, 1935, 26, 65-72.—The report includes: (1) A study of the effect of reviews on long-time retention. The complete presentation of a prose passage for 2.5 min. and an immediate reproduction test was followed with reviews and test after 1 week or 1 and 2 weeks. Retention for the no-review and 1-review conditions was tested 2, 3, 6, and 18 weeks after the original learning, and retention for the 2-review condition was tested 6 and 18 weeks after the original learning. A clear positive relationship between amount recalled and number of reviews was found at all intervals, with no evidence of diminishing returns, but the relative supremacy of the review groups over the no-review groups decreased as the interval before recall increased. (2) The second study was concerned with the optimal spacing of reviews within a 10-day interval between original learning and recall. Using prose selections and German-English vocabularies as materials, the effectiveness of reviews on the 1st and 2nd days after the original learning was compared with the effectiveness of reviews on the 7th and 9th days after the original learning, effectiveness being measured in terms of a written reproduction on the 10th and 21st days. The failure to obtain significant differences in effectiveness led to the conclusion that the nearness of reviews to the original learning and to the time of recall are compensatory.—A. W. Melton (Yale).

2983. Piper, R. F. Freshman preferences: studies in college orientation. *Sch. & Soc.*, 1935, 41, 374-376.—The data of the study are questionnaire returns from freshman students at Syracuse University. It appears that: "(1) Among the subjects these students are actually taking, they esteem most philosophy, citizenship (social problems), English and geology. (2) In the future they expect to like best psychology, astronomy and philosophy (ethics, religion, esthetics). (3) As fields for major and life work they decidedly tend to choose English literature and political science. (All students concerned are in the College of Liberal Arts.) (4) On the whole, their liking for natural sciences and foreign languages is mediocre, and for logic and mathematics they care little."—H. L. Koch (Chicago).

2984. Remmers, H. H. Reliability and halo effect of high school and college students' judgments of their teachers. *J. appl. Psychol.*, 1934, 18, 619-630.—Reliable judgments and little halo effect among ratings of high school and college students are found for the

three most important traits in the Purdue rating scale for instructors—interest in subject, presentation of subject matter, and stimulating intellectual curiosity. The high school ratings were made on a group of 57 student teachers. Previous studies on this rating scale are briefly reviewed.—*R. S. Schultz* (Psychological Corporation).

2985. **Schmeing, K.** *Stufenteilung der jugendlichen Entwicklung.* (On the division into levels of adolescent development.) *Z. pädag. Psychol.*, 1934, 35, 410-416.—In contrast to Tumlriz, the author emphasizes the factor of repetition in the two main phases of adolescent development. However, he conceives of the expression *repetition* not mechanically but organically, and suggests for it the term *re-development*. This term is used to signify that the same basic motif reoccurs on the various levels of development, with transformations, however, corresponding to the unique character of the respective level of development.—*P. Krieger* (Leipzig).

2986. **Smith, H. P.** *Psychological examinations administered by Syracuse University.* *Sch. & Soc.*, 1935, 41, 134-136.—"The psychological examination scores of the first-year students registered in twelve off-campus centers conducted by the extension divisions of Syracuse University and the New York State College of Forestry show that these centers are patronized by a superior group of young people who would be unable to attend a college or university" were it not for the centers. In the case of each ability decile the off-campus-center groups exceeded in their performance on Form 17 of the Ohio State Psychological Examination the standard set by the regular students entering Syracuse University in 1933, as well as that set by the students in the colleges of the Ohio College Association.—*H. L. Koch* (Chicago).

2987. **Smith, V. T.** *Occupational adjustment of college graduates as affected by scholarship in their undergraduate majors.* *Sch. & Soc.*, 1935, 41, 237-238.—The study concerns itself with the question of the relation between the undergraduate major specialization of 816 graduates of the University of Illinois in 1923 and the percentage of time they have spent in the last ten years in various types of occupational activities. In the case of those who made an average grade of B or above in their major subject, there was a greater similarity between major field and type of occupation followed in the post-college period than was true in the case of the group earning an average grade below C. The liberal-arts and science groups showed the least correspondence between occupation after graduation and field of specialization in college; the engineering group, the highest; the education and agriculture students, however, differed little from the engineering. The percentage of time the various groups spent in an occupation similar to that for which they were prepared by their college major ranged from 33 to 77.—*H. L. Koch* (Chicago).

2988. **Strain, F. B.** *New patterns in high school sex teaching.* *J. educ. Sociol.*, 1935, 8, 342-352.—This paper discusses the work of the Cincinnati Social Hygiene Society in cooperation with the public schools

of that city. The program as organized during the past five years has provided lectures for seventh and eighth grade children on both the physical and social aspects of maturation and reproduction and has provided for senior home economics girls a similar but more extensive course which included talks on marriage and on sex education of young children. Conference hours were provided in connection with this latter course.—*F. D. McTeer* (Wayne University).

2989. **Sullenger, T. E.** *Some social factors in school non-attendance.* *Sch. & Soc.*, 1935, 41, 238-240.—The study deals with 1741 truants reported to the Omaha Board of Education in 1931-32. More of the truants were found among the following groups than the frequency of the occurrence of the groups in the general population would lead one to expect on the basis of chance: the foreign-born, the dull or feeble-minded, fourteen- and fifteen-year-olds, males, and poverty-stricken or those registered with social agencies, the unemployed, and laboring people. The author believes that the chief causes of truancy in the Omaha schools are the lack of adequate home supervision and the non-cooperation of the parents with the schools.—*H. L. Koch* (Chicago).

2990. **Trout, D. M.** *Guiding the religious development of the child.* (Child Welf. Pamphl. No. 41.) *Bull. St. Univ. Ia.*, 1934, n. s. No. 764. Pp. 19.—The most wholesome religious guide is the person who recognizes the child's immaturity and does not force him to adopt grown-up thinking and acting before he is capable of honestly doing so. Religious guidance encompasses the selection of goals, mediations and responding to self.—*B. Wellman* (Iowa).

2991. **Ulich, R.** *Psychology and education.* *Ment. Hyg.*, N. Y., 1935, 19, 95-111.—The permanent classification of methodological and philosophical principles is of importance to education and psychology. The educator must not be satisfied with the techniques and tricks of his profession and the fads of the moment. In seeking the aid of empirical psychology, medicine, mental hygiene, and other sciences, the educator must be able to compare the ideas of these sciences with tradition and history, and with a knowledge of the fundamentals, principles and aims of education. Unless this is done, there is the danger that scientific movements of utmost importance to progress will degenerate into fads. This might bring about a reaction against certain scientific movements that would result in overlooking the good things emphasized by them and in stressing their weaknesses.—*H. S. Clapp* (Grasslands Hospital, Valhalla, N. Y.).

2992. **Verdesio, E.** *La enseñanza especial en el Uruguay.* (Special classes in Uruguay.) Montevideo: Imprenta Nacional, 1934.—This book contains a brief account of each class or institution for unusual children in Uruguay. There is an introduction giving the method of selection of pupils and a chapter on technical training for teachers of special classes. Uruguay has a broad and modern system, including schools for mental defectives, deaf mutes and the blind; preventoria; and classes for gifted children

and those with speech defects.—*M. E. Morse* (Baltimore).

2993. **Wagner, M. E., & Strabel, E.** Does training in longhand reading improve shorthand grades? *Bus. Educ. World*, 1935, April.—A description of the effects upon shorthand first-term examination grades of print reading drill and vocabulary training. The 10th-grade school average and an average of all Regents grades taken by each student were found most predictive of shorthand performances. The subjects were paired with other 11th-grade students of Gregg shorthand for sex, age, Terman IQ, sophomore school average, and Regents Examination average. The reading trained group was found superior in examination marks to the untrained students. (The chances are 83 in 100 that the difference is reliable.) The vocabulary-trained group averaged 3.8% better shorthand examination grades than their control. (The chances are 96 in 100 that this difference is reliable.) The differences in shorthand term averages were negligible for these experiments.—*H. J. P. Schubert* (Transient Center, Buffalo).

2994. **Wagner, M. E., & Strabel, E.** Progress on Buffalo research. *Bus. Educ. World*, 1935, 15, 436.—The purpose of this study is to determine the effects of special training in print reading and vocabulary upon ability to read and write Gregg shorthand. This article is concerned with showing that the training in print reading was effective. The trained group, 11th-grade students in the commercial curriculum, were compared with 322 untrained high school juniors for reading ability as measured by the paragraph reading sub-test of the Nelson-Denny Reading Examination. The trained students, after about one hour of print reading drill, showed scores measurably superior to the untrained larger group.—*H. J. P. Schubert* (Transient Center, Buffalo).

2995. **Wagner, M. E., & Strabel, E.** Predicting success and failure in college ancient and modern foreign languages. *Mod. Lang. J.*, 1935, 19, 285-293.—The subjects were 661 men and women, entrants at the University of Buffalo during 1925-1929. The following measures were related to the freshman-sophomore college language average and to the individual college language grades: American Council Psychological Examination sigma scores for the total examination and for the five sub-tests, Iowa High School Content Examination sigma scores for the total examinations and the four sub-tests, age, number of high school units, individual high school Regents Examination grades in the various languages, secondary school averages in Latin, French, German, and Spanish, and a total average of all high school Regents examinations (except music, commercial subjects, and the like). The following conclusions were reached: "At this University, the languages are more easily predicted than any other field of college endeavor. The regents average is the best general index to college language success and to success in any specific language. Regents Latin III and IV as well as high school or college language grades within the same language field are highly indicative of language

success. Success in college Latin, Greek, and in advanced courses in the modern foreign languages is particularly easy to predict. The cooperative French test does not foretell success in college French as well as either previous high school or college training in the field."—*H. J. P. Schubert* (Transient Center, Buffalo).

2996. **Wagner, M. E., & Strabel, E.** Homogeneous grouping as a technique for improving prediction coefficients. *Sch. & Soc.*, 1934, 40, 887-888.—The authors report for groups homogeneous in some respect the correspondence between a scholastic average based on college freshman and sophomore grades (University of Buffalo) and the average grade earned on the New York State Regents Examination. The correlation between the two variables mentioned above is .80 or higher in the case of (1) the bilingual group, (2) those who are the youngest in their sibships, (3) pre-professional girls, (4) girls from two Buffalo high schools, (5) girls completing high school at 19 years or over, and (6) only children. For groups having the same Regents average, girls tend to "achieve" slightly more in college than do boys; Buffalo students than do non-Buffalo; students from certain high schools than do those from others; bilinguals than do monoglots; only children than do non-only; if the Regents examination grades are at the higher levels, the reverse obtains at the lower grade levels. Boys 16 years or less or 20 or over at high school graduation and girls 16 or less or 18 or over when completing the work of the secondary school seem to earn higher grades in college than do those of the same average standing on the Regents Examination but of different graduation age.—*H. L. Koch* (Chicago).

2997. **Wagner, M. E., & Strabel, E.** Predicting success in the college physical sciences. *Sci. Educ.*, 1935, 19, 4-9.—The subjects were 661 men and women, entrants at the University of Buffalo during 1925-29. The following measures were related to the freshman-sophomore college science average and to individual college science grades: American Council Psychological Examination sigma scores for the total examination and for the five sub-tests, Iowa High School Content Examination sigma scores for the total examination and for the four sub-tests, age, number of high school units, individual high school Regents Examination grades and a total average of all high school Regents Examinations. In general, college science cannot be predicted with even fair accuracy. Regents Latin III is the best predictor for the average of freshman-sophomore college sciences and for an orientation course in physical science. Regents American history stands high in predictive value for girls. For predicting individual subject success, the total Regents average may be used. For predicting college physics, high school chemistry, physics, or trigonometry serve best; for college chemistry, high school chemistry or physics; for college botany and geology, the Regents average; for college zoology, the Iowa Content (sub-test science). In predicting college chemistry, a combination of Regents physics and chemistry is about equal to the Columbia Research Bureau Chemistry Test.—*H. J. P. Schubert* (Transient Center, Buffalo).

2998. Washburne, C. The challenge of childhood. The educator's response. *Ment. Hyg., N. Y.*, 1935, 19, 47-58.—The progressive schools try to answer the challenge of the child by reorganizing the school to meet not only the child's needs for a sense of security and self-confidence, but by providing outlets for his energies and opportunities for taking part in the activities, thoughts, and feelings of a social group. Such schools try to prevent maladjustment. They also provide for the diagnosis and treatment of problem children in the classroom. A summary of the way the Winnetka schools are meeting the challenge of childhood is given in some detail.—H. S. Clapp (Grasslands Hospital, Valhalla, N. Y.)

2999. Williams, G. P. The Northamptonshire composition scale. London: Harrap, 1933. Pp. 129. 5 s.—(Not seen).

3000. Williams, J. H. Early history of the California Bureau of Juvenile Research. *J. juven. Res.*, 1934, 18, 187-214.—The author gives a brief account of the California Bureau of Juvenile Research during the period from 1912 to 1923, mentioning legislative enactments which speeded or retarded the project, personnel, publications, types of service rendered, dominating philosophies, major projects, and methods and techniques employed in the effort to reach objectives. Some of the outstanding findings of representative studies undertaken by the Bureau are reported.—H. L. Koch (Chicago).

3001. Zook, G. F. The child in our educational crisis. (Child Welf. Pamphl. No. 43.) *Bull. St. Univ. Ia.*, 1934, n. s. No. 766. Pp. 18.—The menace of the depression to children is not in health and physical danger but in curtailment of education. Ignorance in others is as much of a menace as disease in others. Recently expenditures for education have been reduced while at the same time the number of children enrolled in schools has greatly increased. Possible gains from the depression are the demonstration of advantages of nursery schools, clarification of the role of federal aid to education, and realization of state responsibilities.—B. Wellman (Iowa).

[See also abstracts 2689, 2805, 2878, 2896, 2919, 3016, 3018, 3033.]

#### BIOMETRY AND STATISTICS

3002. Arnold, J. N. Nomogram for determining validity of test items. *J. educ. Psychol.*, 1935, 26, 151-153.—A nomogram based on the earlier work of D. F. Votaw (*J. educ. Psychol.*, 24, 681-685), but superior in that it utilizes the numbers of responses, thus making it unnecessary to calculate the proportions.—A. W. Melton (Yale).

3003. Baehne, G. W. [Ed.] Practical applications of the punched card method in colleges and universities. New York: Columbia Univ. Press, 1935. Pp. 442. \$4.50.—This volume is an exposition of the punched card method as it applies to colleges and universities, the work of university and college administration being covered as well as the problems of education and research.—A. B. Hunter (Clark).

3004. Cuff, N. B. A new device that scores tests. *J. educ. Psychol.*, 1935, 26, 73-77.—A 100-item 5-choice multiple-choice test was scored at the rate of 17.6 tests per hour by the usual method and at the rate of 180 tests per hour by using a "testometer" of the author's design. The "testometer" permits small weights to fall through holes in a paper punched in accordance with the student's choices whenever the choice is correct. The test score is determined by the total weight of the weights which fall through to the platform of a scale. 99.99% of the test items were scored correctly by the testometer.—A. W. Melton (Yale).

3005. Dunlap, J. W. The computation of descriptive statistics. New York: Ralph C. Coxhead Corporation, 1934. Pp. 120.—A computation manual with special reference to the *mathematon* calculating machine. Includes a discussion of the accuracy of computation as well as detailed directions for computing various measures of central tendency, dispersion and correlation. Numerical examples are given of the computation of higher moments, skewness, kurtosis, linear partial and multiple correlation, and coefficients of non-linear correlation and contingency. No attempt is made to expound the theory or assumptions underlying the various statistics, nor is it within the scope of the manual to discuss the conditions under which the various formulas should be applied. However, references are given to theory and application as well as to computation.—F. E. Linder (Worcester State Hospital).

3006. Hotelling, H. The most predictable criterion. *J. educ. Psychol.*, 1935, 26, 139-142.—Since several measurable criteria may often be found which can be taken as estimates of a single non-measurable variable, there is sometimes need for finding a linear function of the criterion variates which can be most accurately predicted from given observations. A solution for the problem is given.—A. W. Melton (Yale).

3007. Palmer, C. E. Note on the statistical significance of the difference of two series of comparable means. *Hum. Biol.*, 1934, 6, 402-405.—(*Biol. Abstr.* IX: 2374).

3008. Pujals, C. C. Una tècnica abreujada per a obtenir simultàniament els coeficients d'intercorrelació de Pearson entre un nombre qualsevol de proves. (An abbreviated technique for obtaining Pearson's coefficients of correlation simultaneously in any desired number of cases.) *Rev. Psicol. Pedag.*, 1934, 2, 237-284.—This procedure is not original, but is a simple application of the Mendenhall-Warren-Hollerith method to the use of ordinary adding and calculating machines. Both methods give the same results. With Pujals' procedure, however, the gain in rapidity, simplicity and automatic control is great; the expense of the Hollerith machine is avoided, and any number of coefficients can be obtained simultaneously. The author explains, with numerous formulae, tables and graphs, the theory and practice of his method.—M. E. Morse (Baltimore).

3009. Shen, E. Note on the sampling error of the median. *J. educ. Psychol.*, 1935, 26, 154-156.—A general formula for the standard error of the median is  $\sigma_{Mdn} = i\sqrt{N/2f}$ , where  $i$  is the class-interval,  $f$  the number of observations in the class within which the median lies, and  $N$  the number of observations in the whole sample. The formula commonly used,  $\sigma_{Mdn} = 1.25337/\sqrt{N}$ , is a special case and assumes a normal distribution. Shen shows that the formula which assumes normality underestimates the  $\sigma_{Mdn}$  for platykurtic distributions and overestimates the  $\sigma_{Mdn}$  for leptokurtic distributions, whereas the general formula is adequate. In addition, there is presented a formula which may serve as a guide to determine whether the mean or the median is a better measure of central tendency in a particular case.—A. W. Melton (Yale).

3010. Snedecor, G. W., & Irwin, M. R. On the chi-square test for homogeneity. *Iowa St. Coll. J. Sci.*, 1933, 8, 75-81.—(*Biol. Abstr.* IX: 2379).

[See also abstracts 2569, 2743, 2903.]

#### MENTAL TESTS

3011. Knight, R. Intelligence and intelligence tests. London: Methuen, 1933. Pp. 96. 2/6.—(Not seen).

3012. Mahan, H. C. A battery of performance tests (the Arthur scale revised). *J. appl. Psychol.*, 1934, 18, 645-655.—An analysis is made of the original data on the Arthur performance scale. Weighted scores are determined for the Knox cube test, Seguin form board, Healy P. C. II, Porteus maze, and Kohs block design test, which most closely approximate Binet mental age. The results are presented using this battery on a group of twenty state hospital patients.—R. S. Schultz (Psychological Corporation).

3013. Stevanović, B. P. The development of the child's intelligence and the Beograd revision of the Binet-Simon scale; summary of data and results. *Bull. Acad. Lettr. serbe*, 1935, No. 1, 89-114.—The subjects studied came from towns and villages, and the scale was adapted to fit urban and peasant children. Selection of children and test items was made according to the Terman procedure. The Beograd revision with scoring instructions is included. Special attention is given to vocabulary, and an analysis of its development in respect to the "concrete-abstract" scheme is made. Graphs and tables of the distribution of intelligence are made comparable to Terman's. Peasant children as a group were found to be inferior to urban children in most tests of the scale; they were equal in memory items and arithmetical problems. Comparisons are made between the different social groups and the sexes on individual items. The results are in agreement with the findings of other workers.—R. Goldman (Clark).

3014. Tuckman, J. A picture performance scale. *J. educ. Psychol.*, 1935, 26, 17-29.—The scale used "involves the ability on the part of the subject to perceive the relation between the parts of an action or episode to the completed action or episode which consists of a definite order or sequence." 35 cartoons

from *The New Yorker* were presented to 114 subjects ranging in age from 5 to 17 years and in IQ from 68 to 132. The cartoons consisted of from 3 to 12 parts and the subjects had to reconstruct the correct order of the parts from a random arrangement. The test scores correlate .81, .74, and .85 with school grade, CA, and MA, respectively. The half-test reliability coefficient is .88 (.93 when corrected by the Spearman-Brown formula).—A. W. Melton (Yale).

[See also abstract 2986.]

#### CHILDHOOD AND ADOLESCENCE

3015. Aichhorn, A. Kann der Jugendliche straffällig werden? Ist der Jugendgerichtshof eine Lösung? (Can the youth be punishable? Is the juvenile court a solution?) *Z. psychoanal. Pädag.*, 1934, 8, 77-95.—A brief historical outline of the treatment of juvenile offenders in Austria is given. The present juvenile code considers the immaturity, the development and the experience of the youth, but still seeks to protect society from the criminal instead of recognizing that criminality is the result of mental illness which is now often curable. It should aim not to "improve," but to "heal." Punishment merely makes anti-sociality latent. Psychoanalysis indicates that anti-social behavior results from unconscious motives and mental processes. This should change our attitude toward punishment as an educational means. Education should never take the form of emotional action, but rather should be a conscious effort to make of the impulsive child a cultured person. The child may react to a prohibition in various ways, one of which is "bad" conduct. Aggression is the content of anti-social behavior in its many manifestations. Marital maladjustment of parents is an important factor in causing social maladjustment of children. One cannot say that the youthful law-breaker, or in fact, any one individual, is "guilty." An "educational senate" composed of teacher, doctor, analyst, social worker, and others is recommended to decide upon the appropriate treatment for juvenile "offenders."—J. J. Carlson (Aurora-on-Cayuga, N. Y.).

3016. Boynton, P. L., & McGaw, B. H. The characteristics of problem children. *J. juven. Res.*, 1934, 18, 215-222.—Each of 66 teachers of children in the fifth and sixth grades of the public schools of Nashville, Tenn., was instructed to select and describe the five children in her charge who were the worst problem cases. No definition of problem case was given the teachers. The 330 children selected tended to be over age for their grades. Three-fourths were boys. The average number of undesirable traits listed for a child was 7.23. Inattention, carelessness, lack of interest in work, refusal to study, and tendency to disturb class routine were the five traits most frequently reported. The author is of the opinion that these teachers, like those dealt with by Wickman in certain of his investigations, are concerned to a disproportionate degree with behavior or traits making for disturbances in the classroom and not enough concerned about basic personality aberrations or emotional disorders.—H. L. Koch (Chicago).

3017. Brackett, C. W. Laughing and crying of preschool children. *Child Developm. Monogr.*, 1934, No. 14. Pp. xv + 91.—Records of the laughing and crying of 29 children, aged 18 to 48 months, during their free play and routine activities in a nursery school, were studied by means of an observational technique. Each child was observed during 24 five-minute periods. Children were scored in terms of the number of 10-second intervals during which laughing or crying occurred. The agreement between simultaneous but independent observers ranged from 92 to 100%. Correlations between frequency of intervals during which laughter occurred (1) during the first and second half of the observations, (2) during even- and odd-numbered records, gave respective coefficients of .76 and .57; the corresponding coefficients for crying were .44 and .33. Laughter scores ranged from 3 to 73 during free play and from 3 to 46 during routine activities (eating, toilet, dressing, etc.); the respective means were 39.5 and 22.9; corresponding ranges for crying were 0 to 83 and 0 to 56, with respective means of 24.9 and 9.5. Laughter correlated .44 with CA, .26 with MA, .07 with IQ, .89 with age-weight index and .60 with amount of language. Crying correlated -.47 with CA, -.40 with MA, -.09 with IQ, -.36 with age-weight index, and .00 with language. The correlation between average temperature and laughing was .11, between average temperature and crying, -.53. There was a small negative correlation (-.11) between laughter and crying. Social contacts were observed in connection with 84.5% of the instances of laughter, and with 78% of the instances of crying; contact with material was associated with 84% of laughter and 67% of crying. There was a correlation of .75 between the frequency of the child's own laughter and his presence in situations when other children laughed; the corresponding coefficient for crying was .33. Girls laughed more when in contact with girls, cried more when in contact with boys; boys laughed and cried more when in contact with boys.—A. T. Jersild (Child Development Institute, Columbia).

3018. Carter, H. D., Pyles, M. K., & Bretnall, E. P. A comparative study of factors in vocational interest scores of high school boys. *J. educ. Psychol.*, 1935, 26, 81-98.—Using the Strong Vocational Interest Blank, the Thurstone multiple factor analysis, and with 133 junior and senior high school boys as subjects, the authors set out to determine (1) whether the interests of boys tend to be less well differentiated than the interests of adults, (2) whether the Strong test is applicable to boys, and (3) whether any broad group factors could be found in the reactions of boys. Conclusions: (1) no significant systematic relationship between CA and interest scores was found; (2) the intercorrelations of interest test scores for high school boys are similar ( $r = .77$ ) to those for college seniors as previously reported by Thurstone; (3) whereas Thurstone discovered four factors with adults, the authors found only three clear-cut interest factors with high school boys, and these three factors, although at least in part identifiable with the factors found with adults, must be weighted differently with high school boys than with adults.—A. W. Melton (Yale).

3019. Christoffel, H. Entwicklungspsychologische Bemerkungen zur Kinderpsychiatrie. (Developmental psychology in child psychiatry.) *Schweiz. med. Wschr.*, 1933, 63, 1017-1019.—Summary facts concerning the birth trauma, together with a discussion of the importance of factors in the postnatal environment and the structure of the family in the mental development of the child.—(Courtesy *Année psychol.*)

3020. Fisher, M. S. Language patterns of preschool children. *Child Developm. Monogr.*, 1934, No. 15. Pp. xvi + 88.—The data represent verbatim records, covering a period of 9 hours, of the language of each of 72 children, aged 22 to 60 months. The subjects were nursery school groups, with a median IQ of 136. Grammatical form, sentence structure and content were analyzed. Some findings: Children made a high proportion of remarks about themselves; the proportion of remarks about other persons increased to the age of 5 years, then remained constant; the proportion of remarks about material objects declined up to the age of 4 years, then remained constant; boys talked more about material objects than did girls; girls talked more about other persons than did boys. There was an increase with age in the proportion of questions and of commands up to the age of 4 years. There was a decline in non-verbal or incomprehensible speech, in exact repetition, and in structurally incomplete sentences. Only simple sentences, if any, appeared at the second year; compound, complex, and compound-complex sentences appeared in the first half of the third year, in the order given; there was a positive correlation between intelligence and complexity of sentence structure. The mean number of words per comprehensible remark increased from 3.5 words for the youngest children to 9.5 for the oldest. Girls were somewhat superior to boys in all developmental indices. The proportion of negative sentences to total remarks increased with age, up to the beginning of the fifth year. "Revealed through his language patterns, the preschool child is a confirmed egoist, and extremely sociable. . . . As he grows older he talks more and more about other people, but not at the price of leaving himself out of the picture. Instead, he talks the same amount about himself, but less about objects. . . . An outstanding feature . . . is the amazing constancy of the coefficient of egocentricity."—A. T. Jersild (Child Development Institute, Columbia).

3021. Fürst, T. Zur psychischen Hygiene des Kindes- und Jugendlichenalters. (Mental hygiene of the child and adolescent age.) *Z. pädag. Psychol.*, 1935, 36, 25-37.—Gives a number of practical suggestions for a better cooperation between teachers and school physicians in the promotion of mental hygiene. The future will stress mental especially (on a bio-constitutional basis) rather than physical hygiene. Data with regard to the bio-constitutional conditions of the individual pupil must be supplemented with similar data from his immediate and remote family. To this end, more extensive data-gathering devices, questionnaires and forms, must be introduced into schools. These must be supplemented with the test-

ing methods of modern psychology, physiology, and medicine. The stress in collecting data must be on the psycho-biological environment rather than the physical. The application of modern typological research (Jaensch, Kretschmer, and Pende) will permit better differentiation of mental hygiene service. Attention should center not only in abnormal cases but also on normal ones, for in the latter, especially, lies the recognition of degrees of difference in abilities of importance. The article concludes with a tabular summary of suggested procedure: (1) methods of constitutional biology; (2) constitutional selection from the point of view of achievement and national eugenics; (3) apparatus of the school physician and psychologist.—*W. Reitz* (Chicago).

3022. **Georgiade, C.** *Psihologia gandirii copilului*. (Psychology of the thought of the child.) Bucharest: (Soc. de Philosophie), 1934. Pp. 367.—A study of the current problems of child psychology, together with the biological and social factors in intellectual development. The author defends the general conceptions of Piaget against the empiricism of the English school and the criticisms of S. Isaacs.—(Courtesy *Année psychol.*)

3023. **Gesell, A.** *Behavior pattern and behavior morphology*. *Science*, 1935, **81**, 15-18.—The author discusses the meaning of "morphology" and its application in "behavior morphology" as a prelude to an examination and interpretation of the series of behavior patterns pertaining to the infant's index finger. In the progressive individuations and elaborations exhibited in the behavior patterns of the human forefinger, the author sees a true image of the developmental mechanics of the higher mental processes. All behavior patterns, he believes, are primarily a function of pattern morphology and are therefore subject to morphological investigation.—*P. Seckler* (Charity Organization Society, Hartford, Conn.)

3024. **Gesell, A., & Thompson, H.** *Infant behavior: its genesis and growth*. New York: McGraw-Hill, 1934. Pp. viii + 343. \$3.00.—This book, based upon periodic developmental examination of normal infants at 15 age levels from 4 through 56 weeks, and over a period of a year, deals primarily with the detailed structuralization of early behavior growth. The purpose is to establish norms as instrumental aids for analysis of processes of behavior growth and characterization of developmental status. The experimental situation, while rigidly controlled, was designed to evoke characteristic behavior. Twenty-five behavior situations are classified in 7 categories: postural; locomotion; perceptual; prehension; adaptive; language; social. In addition to minutely detailed records of all phases of the total behavior of the child, extensive cinema records were made. To link the period under observation with earlier stages the trend of behavior of the embryo, fetus, and neonate is sketched. The data obtained are not ranged in a scale but tabulated in detail for research purposes. Patterns of behavior are shown to be closely linked with age. "The phenomena of maturation suggest the presence of tenacious, stabilizing

factors which safeguard the basic patterns of growth." "Growth tends toward an optimum realization."—*M. P. Montgomery* (Faribault, Minn.)

3025. **Hamburger, F.** *Erpressende Kinder*. (Blackmailing in children.) *Wien. med. Wschr.*, 1933, **83**, 549-556.—Under special circumstances very young children (as young as 5½) attempt to extort advantages from those around them. Innate disposition does not seem to be as important a factor as the structure and the character of the entourage.—(Courtesy *Année psychol.*)

3026. **Karr, M.** *Development of motor control of young children; coordinated movements of the fingers*. *Child Developm.*, 1934, **5**, 381-387.—Individual tests were given to 22 nursery-school children of their ability to cut along a line on paper held horizontally and firmly before them. Success on these tests, scored in terms of accuracy of cut, skill of manipulation, and time required, show a definite correlation with both chronological age and intelligence.—*F. D. McTeer* (Wayne University).

3027. **Kasatkin, N. I., & Levikova, A. M.** *On the development of early conditioned reflexes and differentiations of auditory stimuli in infants*. *J. exp. Psychol.*, 1935, **18**, 1-19.—Three children, aged 11 days to 1 month (at the beginning of experimentation) were used as subjects in these studies. The chief findings and conclusions are summarized as follows: "(1) The conditioned alimentary reflexes, in response to auditory stimuli, appear in the first half of the second month of the human infant's life. (2) There are three stages in the development of the conditioned auditory reflexes: (a) the stage of indifference, (b) the inhibition of movements and the appearance of the first signs of conditioned reactions; (c) the stage of a clear conditioned reaction. (3) In the formation of the conditioned auditory reflex the main role is played by the child's age and not by the number of stimulations. (4) The sucking movements are the most convenient and simple indication of the conditioned alimentary reflexes in the first three months of the child's life. (5) At the age of 2½ to 3½ months the child is able to differentiate as small a difference as 11½ tones, as indicated by the method of conditioned reflexes. (6) At the age of 4 months and 4 days the differentiation amounts to 5½ tones. (7) There are considerable individual variations even in the formation of the simplest auditory differentiation. (8) In its formation the first differentiation formed passes through the following stages: (a) an absence of differentiation; (b) the stage of unstable differentiation, and (c) the presence of differentiation. (9) The formed auditory differentiation, being stable enough, still may disappear under the influence of certain outer and inner factors. (10) The presence of a differentiation suggests a complication of the cerebral functions with the age of the child."—*H. W. Karn* (Clark).

3028. **Klingmann, T.** *Our children's children*. *Med. Rec., N. Y.*, 1935, **141**, 171-173.—The author reports a study of 288 problem children between the ages of 4 and 10 years. These children were classified

into 6 behavior groups, which were: (1) those characterized by mild difficulties; (2) children of average or superior intelligence but moody and uncontrollable; (3) children with severe difficulties who have broken with the social order; (4) children with epilepsy and convulsive disorders; (5) children with organic diseases of the central nervous system; (6) feeble-minded children. Study of the physical types of these children enabled classification into 5 groups, which tended to be correlated with certain mental types and behavior problems. The observation was made frequently that the genesis of the child's behavior problems lay in misunderstandings due to inadequate instruction or resulted from imitation of parents, teachers or admired fellows.—*M. H. Erickson* (Eloise Hospital).

3029. **Magnin, H.** *Le développement physique et intellectuel d'après l'examen d'un groupe d'élèves.* (Physical and intellectual development determined from the examination of a group of students.) Lyons: (Thèse de Médecine de Toulouse), 1934. Pp. 84.—Foucault tests were given to 234 students between the ages of 7 and 20 years. A slight retardation was noted between the ages of 14 and 16, when the physical growth is maximal. The attention capacity showed a change which was superposed on the intellectual level.—(Courtesy *Année psychol.*)

3030. **Malmberg, A.** *Ett problembarn. En 10-årig flicka, stum sedan skolans början, förbättrad under psykiatrisk pedagogisk behandling.* (A problem child; a ten-year-old girl, dumb since she started school and improved by psychiatric pedagogical treatment.) *Svenska Läkartidn.*, 1934, 31, 1649-1650.—The girl started school when 7 years old. During the two subsequent years she never talked in the classroom or with the other children. During the first semester, she did not speak to her father, but showed fairly normal speech behavior with her mother and siblings. Previous to starting school, the child's behavior was reported to have been normal in every way. Her mother and a couple of siblings were described as subnormal. When asked why she did not speak in school, her answer was that "the other children could look at her." She did fairly good work in arithmetic and writing. At the age of 9, the girl was admitted to a psychiatric hospital, where she was not treated as a "peculiar" child but was humored in order to give her self-confidence. The underlying cause of her deviating behavior remains unknown, but a gradual improvement is noted. At the present time she even talks a bit in school, and is described by her teacher as possessing logical reasoning and a keen sense of humor. She learns and forgets easily.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

3031. **Mather, W. G.** *The courtship ideals of high school youth.* *Sociol. soc. Res.*, 1934, 19, 166-172.—Answers by high school students to a questionnaire with 25 traits to be placed in order of preference showed that brains and good health ranked in first and second place. Overlapping indicated that high school students do not as a group have definite standards as to qualities most desired in the opposite sex.

The same questionnaire when given to a group of Cornell University students showed that the latter judged by a definite pattern; the college group tended to select as highest intangible, abstract qualities such as dependability and considerateness. The author believes that if the high school is the sifting place for courtship ideals, it is the place where a course similar to the "family" courses given in university sociology departments should begin.—*J. R. Hilgard* (Stanford).

3032. **Meyer, E.** *Ordnen und Ordnung bei 3-6 jährigen Kindern.* (Classification and assortment in 3-6-year-old children.) *Neue psychol. Stud.*, 1934, 10, No. 3. Pp. 100. RM. 4.80.—93 3-6½-year-old children were the subjects of these experiments. Three tasks were selected: (1) to arrange freely in groups a limited number of similar objects or objects of two different kinds; (2) to assign a new object to one of two given groups of objects; (3) to choose from four objects two pairs. It was found that the genetic line of classificatory process leads from a merely functional activity to Gestalt formation. Children show preference for emotional qualities, for rhythmical, regular, balanced or contrasting wholes and for meaningful connections.—*K. Tittel* (Dresden)

3033. **Oestreich, P.** [Ed.] *Das Kleinkind, seine Not und seine Erziehung. Vorträge vom Kongress für Kleinkind-Erziehung.* (The infant: his needs and training. Reports from the Congress on Infant Education.) Jena: K. Zwing, 1933. Pp. 205.—Reports presented at the Congress on the Education of the Infant, held in Berlin in October, 1932. There are two papers on the radical reform of education (P. Oestreich, *The Needs of the Adult and of the Child*; M. Weise, *The Present-day Problems of Pedagogy*); four on individual psychology (including F. Künkel, *The Education of Educators*; A. Neuer, *Individual Psychology and Education*; M. Sperber, *Teachers at the Crossroads*); four from the Froebelian point of view; five with the Montessorian point of view; three from the psychoanalytical point of view (A. Freud, *Education of the Small Child from the Psychoanalytical Point of View*; S. Bernfeld, *Psychoanalytical Psychology of the Small Child*; G. Behn-Eschenburg, *Psychoanalytical Education of the Teacher of the Small Child*). There is a paper on Rudolf Steiner's educational theory by P. Oldendorff, and papers by O. Tacke and F. Helling on school reform. There are a few words by the editor, who rejects systems which appeal to the beneficent action of love in the life of the child.—(Courtesy *Année psychol.*)

3034. **Plant, J. S.** *The challenge of childhood. The psychiatrist's response.* *Ment. Hyg., N. Y.*, 1935, 19, 59-68.—The psychiatrist's answer is that of the physician. He must know as much as possible about the individual child and his environment. His diagnosis must be more and more accurate. In therapy, he must recognize clearly the effect of environment upon the personality of individuals. He must know what the individual needs from his environment in order to develop properly. He must be concerned not so much with adjustment of problems as with the adjustment to problems. Prevention is

also most essential. Children should be prepared to meet change. The psychiatrist must help them attain "a more integrated completeness and satisfaction in themselves," in order to make them independent of material things.—*H. S. Clapp* (Grasslands Hospital, Valhalla, N. Y.)

3035. Rabello, S. *Caractericas do desenho infantil. Contribuição para o estudo psicologico da criança brasileira.* (Characteristics of children's drawing. Contribution to the psychological study of the Brazilian child.) *Bol. Direct. tech. Educ., Pernambuco*, 1932, 2, 15-78.—This study, which analyzes 5600 drawings of Brazilian children from the ages of 3 to 16 years, points to the same general results as those of other authors on German, English, American, Belgian, French, and Norwegian children. The first three chapters discuss the themes preferred by the child. The results are shown in tables and by curves.—(Courtesy *Année psychol.*)

3036. Rasmussen, V. Ruth. *Tagebuch über die Entwicklung eines Mädchens von der Geburt bis zum 18. Lebensjahr.* (Ruth. A diary of the development of a girl from birth to eighteen years of age.) Munich, Berlin: Oldenbourg, 1934. Pp. 96. M. 7.50.—The author, a teacher in Copenhagen, with the assistance of his wife has made accurate observations of their eldest daughter from birth to the eighteenth year. All observations were immediately recorded. Drawings are accurately reproduced. Transcribed without comments, the observations are left to the reader for interpretation.—*V. Rasmussen* (Copenhagen).

3037. Rauschnig, D. *Die geistige Welt des Sechsjährigen im Kindergarten.* (The mental world of the six-year-old in kindergarten.) *Z. angew. Psychol.*, 1935, 48, 3-78.—Which combination of events takes place in the kindergarten sphere of the six-year-old? What does he absorb and how does it mold his behavior? What inferences for the study of behavior can be drawn from observations of the assimilation, development, and elaboration of the mental functions of six-year-olds? Six children, four boys and two girls, were the subjects. The social behavior, play, general performance, and general knowledge were studied with regard to the potentialities, inherited traits, conventional phases of learning, and characteristic features of the mental life of children. There is evidence of two predispositions: on the one hand there is play, in which reality takes a small part, and on the other hand there is serious consideration of the surrounding objective existence, and the child sets out in a naïve way to test himself on the knowledge and government of the real world.—*J. Steinberg* (Columbia).

3038. Reckless, W. C., & Smith, M. *The agreement of three observers after practice in simultaneous recording of behavior.* *J. appl. Psychol.*, 1934, 18, 635-644.—A team of three student observers with no formal training recorded behavior of children in the play room of the receiving home of a child-placing agency. Observations were recorded in five-minute periods. The observers were asked to record as many different acts the child manifested as possible, to use

simple concrete language and to read nothing into the behavior. An analysis of the twenty-eighth observation period gives correlations from .92 to .98 among the three observers for the number of acts recorded. Discussion follows concerning the free written method of recording behavior as contrasted with the photographic, prepared schedules, Thomas' floor plan technique and observation methods.—*R. S. Schultz* (Psychological Corporation).

3039. Reichenberg, W. *Ein Fall von Schwererziehbarkeit.* (A case of difficulty in upbringing.) *Z. Jugendk.*, 1934, 4, 281-287.—The personality of a child is described, including his superior ability and complete lack of emotional control or social habits; the factors in his early life are considered to which, according to the theories of K. Lewin, these are to be traced. The methods used in a successful re-education are also indicated.—*M. Lee* (Chicago).

3040. Richmond, W. V. *Sex problems of adolescence.* *J. educ. Sociol.*, 1935, 8, 333-341.—Early adolescence is the gang and pal age; the boy completes his sex education with information and sometimes experience at the hands of his boy companions; the girl turns to day dreams and crushes. Later adolescence develops more mature heterosexual relationships; youths of both sexes are interested in planning for the future. The problems of adolescents are as varied as the situations in which they arise. For any direct attack on these problems especially well-prepared and well-adjusted teachers as well as a coordinated program extending through both the grades and high school would be necessary.—*F. D. McTeer* (Wayne University).

3041. Rosenthal, F. M. *Club activities as an approach to the study of the personality make-up of problem children.* *Amer. J. Orthopsychiat.*, 1935, 5, 32-38.—The personal tendencies of children are shown to stand out more sharply than elsewhere in club meetings, where the children control their own affairs.—*J. McV. Hunt* (Worcester State Hospital).

3042. Schorsch, G. *Anlage und Umwelt in der kindlichen Entwicklung.* (Native traits and environment in child development.) *M Schr. Psychiat. Neurol.*, 1934, 90, 1-59.—No general rules can be set up regarding the part played in determining the child's development by the two factors of native traits and environment. At any rate a participation of the child's character in shaping the environment must be recognized. Character diagnosis is in this connection most important. On the practical side the author is inclined to favor the bringing up of endangered children in work colonies over more expensive educational methods.—*P. Krieger* (Leipzig).

3043. Silverman, B. *The behavior of children from broken homes.* *Amer. J. Orthopsychiat.*, 1935, 5, 11-18.—From an examination of 138 children who were placed by a child-placing agency because their homes had been broken, it appears that there is no significant relationship between the homes broken through delinquency and incompatibility of the parents and the behavior of the children. Where problem behavior occurs it is related more to subtle

emotional relationships within the family than to the overt delinquencies of the parents.—*J. McV. Hunt* (Worcester State Hospital).

3044. **Stekel, W.** *Erziehung der Eltern.* (The training of parents.) Vienna, Leipzig, Berne: Verlag der Psychotherapeutischen Praxis, 1934. Pp. 216. RM. 14.—How do the characteristic faults of parents influence the offspring? From the principle that nervous children come from inharmonious marriages, a study is made of mothers and fathers in relationship to their progeny. It shows how maternal frigidity and paternal sadism affect the younger generation, even to the extent of perversions and mental disorders. The author deals frankly with the problem of sexuality of parents. The mission of the book lies in the statement that all disturbances noted lie in the realm of curability at the hands of the mental hygienist.—*W. Stekel* (Vienna).

3045. **Stogdill, R. M.** *Attitudes of parents toward parental behavior.* *J. abnorm. soc. Psychol.*, 1934, 29, 293-297.—The attitude scale given to three groups of mothers and 50 child-guidance authorities consisted of 60 items of adult behavior, each of which could be rated from 1 to 10, according to how seriously or unfavorably the rater believed the behavior to affect the child. The parents and child-guidance specialists were fairly well agreed on their ratings of approximately two-thirds of the items. Both agreed that the most undesirable forms of adult behavior are those which tend to discourage the child and to undermine his feeling of security and self-confidence. The guidance specialists regarded as relatively more harmful those forms of activity that tend to cause the child to lose confidence in human beings. Parents regarded as relatively more harmful those forms of parental activity which allow the child freedom from moral repression.—*C. H. Johnson* (Boston Psychopathic Hospital).

3046. **Torbek, V. M.** *O moikh oshibkakh v knige "Pedologia v Doshkolnom Vozvraste."* (Errors in my book "Pedology in the Preschool Period.") *Pedologia*, 1932, 1-2, 42-45.—The author regrets his previous anti-Marxian (biologic, mechanistic, and idealistic) views of education and development. His errors were as follows: He underestimated the role of active conscious action in behavior and reduced it to a passive unfolding of biological functions. He conceived of the interaction of human beings and the environment as a process of adjustment instead of an active change of environment by man in accordance with his mode of production and his class position. Exploratory activities of children were thought of as reflexes, ignoring their qualitative distinctnesses. Watson's mechanistic views of the emotionalities of children were accepted uncritically, these views being valuable only as they point out the modifiability of emotions, but not in their conception of the nature of emotions. Piaget's division of speech into ego-centric and socialized was quoted without showing that all speech and, indeed, all behavior can be understood only in a definite social setting. Freudian classifications of the sexuality of children were used, and no attempt was made to unmask the reactionary,

anti-social, biologic, and idealistic tendencies of Freudianism. Köhler's and Bühler's views of the similarities of the intellect of the child to that of the ape were approved without stressing the Marxian distinction of the particularism of man's development.—*G. H. S. Razran* (Columbia).

3047. **Trout, D. M.** *How the child becomes religious.* (Child Welf. Pamphl. No. 40.) *Bull. St. Univ. Ia*, 1934, n. s. No. 763. Pp. 19.—Whenever the child performs an act with integrity, he is behaving religiously. He begins to become religious whenever he responds wholeheartedly to any objectives or goals. When his energies are so focalized, organized, devoted to the achievement of an objective or a series of goals that all fears, conflicts, indecisions and distractions disappear, he is acting religiously. The child becomes religious through a gradual process of satisfaction of demands, education and learning. The means which he uses to achieve his ends are imposed upon him by adults, adopted by him from exemplary behavior or invented as appropriate completions of otherwise unorganized situations.—*B. Wellman* (Iowa).

3048. **Vance, T. F.** *The effect of size of peg and form boards upon the performance scores of young children.* *Proc. Ia Acad. Sci.*, 1933, 40, 181-184.—Three sizes of Wallin peg board A and of the Seguin form board and three sizes of pegs for the Wallin peg board A were tried on 137 children from 24 to 78 months of age. The differences in time, though small, may justify the conclusion that in the making of performance test material a sufficient amount of preliminary investigation should be conducted to determine the optimal size for the purpose for which it is being designed.—*B. Wellman* (Iowa).

3049. **Vieter, H.** *Ueber die emotionale Objektion bei Kindern und Jugendlichen.* (Concerning the emotional objectification of children and adolescents.) *Z. angew. Psychol.*, 1935, 48, 79-112.—Emotional objectification means the transfer of feeling to objects. Children from nine years to puberty were studied in order to see whether this emotional objectification develops in any particular manner. Letters were to be arranged according to likes, dislikes, and indifference, and the reason for the choice was to be written on the presentation card. The same procedure was followed with groups of presented syllables that were to be arranged into words. Objectifying ability—that is, the quality of executing quickly or slowly the objectifying process upon inner experience, feelings, and modes of behavior—follows a definite course of development from nine to thirteen years. The changes of this ability are founded in the developing of the perseveration tendencies of burdening and unburdening. The unburdening is the action phase and the burdening the qualitative phase. These developmental phases seem to have a relationship to constitutional types of a weak or strong emotional objectification ability, but no definite conclusions can be drawn from this experiment.—*J. Steinberg* (Columbia).

3050. **Vitén, A.** *Två problembarn.* (Two problem children.) *Svenska Läkartidn.*, 1934, 31, 1693-1698.—Case history (1) of a psychopathic ten-year-old boy

classified as a genius, hypersensitive, with an abnormally strong egocentric attitude and of superior intelligence (IQ 148). Case II: Nine-year-old asocial psychopath. Normal development, as far as could be ascertained, to the age of 6. No case of mental abnormality in the family. Indications of dystrophia adiposo-genitalis. The diagnosis is said to be uncertain, with the possibility of an isolated epileptic attack.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

3051. Wile, I. S. **The challenge of childhood.** *The challenge.* *Ment. Hyg., N. Y.*, 1935, 19, 38-46.—Since the relation between truancy and criminal behavior has been established, the child challenges society as to what it is going to do about this and the fact of retardation that is the big factor in truancy. Childhood asks the educator and the psychiatrist what they are thinking in the field of mental hygiene. What is being planned that they may develop into adults who are not only physically sound but active intellectually, emotionally mature and socially adequate?—*H. S. Clapp* (Grasslands Hospital, Valhalla, N. Y.).

3052. Winzen, B. **Der Eros im Erlebnis des Jugendlichen.** (Eros in the experience of adolescents.) *M. Gladbach: Küben*, 1935. Pp. 107. RM. 3.30.—*R. R. Willoughby* (Clark).

3053. Zaluzhny, A. S. **Protiv teorii dvukh faktorov v pedologii i v teorii dyetskovo kolektiva.** (Against the theory of two factors in pedology and in theories of children's collectives.) *Pedologia*, 1932, 3, 17-22.—The author criticizes his previous views and the views of Sokolianski on the biosocial nature of human behavior in general and the development of children's collectives in particular. Sokolianski wrote that human behavior is the result of the interaction of two factors: environment (social and physical) and the organism (biological); while the author maintained that, although the laws of the behavior of groups are to be sought in sociology, physiology and reflexology

should be the starting points for the study of children's collectives. Such a two-factor view served perhaps the purpose of counter-acting pure biologism, but is now held to be erroneous and anti-Marxian, even with the addition that the social is the dominant factor of behavior. Marx said that the first historical act of the human individual which distinguishes him from animals is not his thinking, but his producing means for his existence, and that definite individuals, possessing definite means of production, enter into definite social and political relations. Human individuals thus become members of groups when they are already social beings with a definite class allegiance and with a definite psychology, so that collectives should be considered only as social groupings of individuals.—*G. H. S. Razran* (Columbia).

3054. Zenkevich, P. I. **Morfologicheskoe stroenie kisti rabochikh podrostkov.** (The morphological structure of the wrist in adolescent workers.) *Osnovy vozr. Morf.*, 1934, 177-202.—The author examined apprentices to turners and locksmiths (N = 270 and 45) aged 15-19. He compares the morphological type of the wrist with the motor ability. The psychotechnical data were obtained by means of Morze's apparatus, consisting of a support and tremometer. The author has found a positive correlation between breadth of wrist and the motor index.—*B. Vishnevski* (Leningrad).

3055. Zorbaugh, H. W., & Payne, L. V. **Adolescence: psychosis or social adjustment?** *J. educ. Sociol.*, 1935, 8, 371-377.—"The behavior characteristic of our adolescents is not a necessary emotional and social projection of the physiological changes of puberty, but is rather a reflection of our pattern of civilization, which makes of adolescence a major crisis of social adjustment." This conclusion is substantiated by facts from Mead's *Coming of Age in Samoa*.—*F. D. McTeer* (Wayne University).

[See also abstracts 2636, 2689, 2768, 2778, 2801, 2844, 2852, 2918, 2922, 2937, 2969, 2981.]

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